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COUNTY OF STIRLING.

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Secondary Education Committee.

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THIRD —

# Annual Report

On Medical Inspection of  
School Children.

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YEAR 1912-13.



# COUNTY OF STIRLING.

## SECONDARY EDUCATION COMMITTEE.

### THIRD REPORT ON MEDICAL INSPECTION OF SCHOOL CHILDREN, 1912-1913.

County Buildings,  
Stirling, 9th December, 1913.

THIS, the third Annual Report on School Medical Inspection in Stirlingshire, deals with the period from August, 1912, to the end of July, 1913.

The three School Medical Inspectors who carried out the work of actual inspection during the year were Dr. A. Josephine Gardner, Dr. Grahame H. Skinner, and Dr. J. T. Prangnell. The two first named were whole-time inspectors, while Dr Prangnell was engaged only part-time.

The following table shows the distribution of the schools, as allotted to the Medical Inspectors.

SCHOOL MEDICAL INSPECTORS.	SCHOOL BOARDS	SCHOOLS.
Dr A. Josephine Gardner	Denny	Denny, Dennyloanhead, Lawhill, Longcroft, Denny R.C.
	Dunipace	Dunipace, Torwood.
	Fintry	Fintry.
	Gargunnoch	Gargunnoch.
	Kilsyth (Burgh)	Roman Catholic School.
	Kilsyth (Landward)	Banknock, Banton.
	Kippen	Arnprior, Buchlyvie, Kippen.
	Larbert	Carron, Carronshore, Central, Village.
	Logie.	Bridge of Allan, Causewayhead.
	St. Ninians	Bannockburn, Cambusbarron, Cowie, East Flean, Fallin, Milton, Muirland, West Flean, St. Mary's R.C., Sauchie Female.
Dr Grahame H. Skinner	Stirling	Abbey, Allar's, Craig's, High, Junior High, St. Ninians, Territorial, Episcopal, St. Mary's R.C.
	Airth	Airth, South Alloa, Dunmore.
	Baldernock	Baldernock.
	Balfron	Balfron.
	Buchanan	Buchanan, Inversnaid, Sallochty
	Campsie	Craighead, Campsie Glen, Lennoxtown, Torrance, St. Machan's R.C.

SCHOOL MEDICAL INSPECTORS.	SCHOOL BOARDS.	SCHOOLS.
Dr Grahame H. Skinner	Drymen	Auchentroig, Drymen, Finnich.
	Falkirk (Landward)	Auchengean, Bonnybridge, Greenhill, Laurieston.
	Grangemouth	Bothkennar, Dundas, Grange, Grange H.G., Infant, Polmont, Redding Village, Shieldhill, Redding Public, Wallacestone, Zetland, Sacred Heart R.C.
	Killearn	Killearn.
	Kilsyth (Burgh)	The Academy.
Dr J. T. Prangnell	Kilsyth (Landward)	Chapel Green.
	Muiravonside	Blackbraes, Drumbowie, Maudiston, Muiravonside.
	Slamannan	Avonbridge, Limerigg, Rosemont, Slamannan. Barnsmuir.
	Strathblane	Strathblane.
	Falkirk (Burgh)	Rainsford, Camelon, Carmuir, Central, Comely Park, High, Junior High, Northern, Victoria, St. Francis R.C.

Dr Skinner, having received an appointment in Birkenhead, left the service of the County Secondary Education Committee on 15th August, 1913, and was succeeded by Dr John S. Findlay, Dufftown.

The work has been done as prescribed by the Scotch Education Department. Four routine age-groups have been examined, viz., the five-year-olds or entrants and the thirteen-year-olds, with two intermediate groups, the seven-year-olds and the ten-year-olds. In addition there were many non-routine examinations, (i.e.) examinations of children who were not of any of the prescribed ages, but who from one cause or another were considered by the parents, the teacher, or the School Medical Inspector, to be in need of medical examination. The following table shows the number of children examined and the approximate time occupied.

INSPECTOR.	ROUTINE EXAMINATION.	NON-ROUTINE EXAMINATION.	TIME OCCUPIED.
Dr A. J. Gardner ...	5528	732	703 hours.
Dr G. H. Skinner ...	4150	718	590 ..
Dr J. T. Prangnell ...	2552	500	347 ..
Total for County,	12230	1950	1640 hours.

Average number of children examined per hour—8.

Average time taken to examination of each child—7 minutes.

Throughout the year the Medical Inspectors in the course of their work paid two routine visits to each of the schools under their care. Wherever the results of medical inspection at the routine visits to any school were considered such as to warrant further medical attention, the medical inspector took an opportunity or opportunities to revisit the school and to make the necessary re-examinations. That has been termed "follow-up" work, and so important a part has it in medical inspection that practically one-fifth of the inspectors' time is given to it. In addition, the inspectors are occasionally asked to pay extra visits to schools because of the occurrence of cases of infectious disease.

As, however, the inspectors have to arrange for their visits to schools ten days to a fortnight in advance, it would, as a rule, cause serious inconvenience to call them on short notice to a school other than that arranged for. The result is that most of the work in connection with infectious disease in schools has to be undertaken by the medical officer of health.

Each of the medical inspectors submits to me, at least ten days in advance, a plan of engagements for each week, and detailed returns of work accomplished are also sent at regular intervals. These returns are all abstracted and summarised under my supervision in the central office, and thus the medical inspectors are spared a very laborious, though very essential, part of the work. It is undoubtedly an excellent arrangement, because in this way the medical inspectors' valuable time and energy are saved for what may be considered their proper work. Occasionally conferences regarding various points that may arise are held on Saturday mornings between the medical inspectors and myself, and as opportunity offers I look in upon the inspectors in the schools.

Reference has already been made to the "follow-up" work of the school medical inspectors. So important is this branch that the County Secondary Education Committee have appointed \* one full-time nurse (Nurse Gibson) and have also made arrangements to have the services of seven district nurses as occasion requires. Wherever insufficient attention is being paid to the amelioration of defects found during school medical inspection the names and addresses of such children are sent to the nurse.

In the schools of Nurse Gibson's area there are 23,076 children on the roll. The total scholars of the various areas under the charge of the part-time nurses amount to 7,321. It will thus be seen that the "follow-up" work in connection with almost a fourth of the children in the Stirlingshire schools is performed by the seven part-time nurses. Nurse Gibson sub-

\* The Committee have since decided to appoint an additional full-time nurse and to dispense with the services of the district nurses.

mits fortnightly detailed returns of her visits, but there is difficulty in keeping in touch with the work of the part-time nurses. Nurse Gibson's visits to the children's homes amounted to 3440 for the year, representing an increase of 450 over the preceding year. Appended is the Nurse's report which gives a detailed table with relative references and explanations.

Appended are Tables I. to IV., giving an analysis of the results of both routine and non-routine inspection for the County as a whole, and also Table V., giving the average heights and weights of the four routine age groups.

It is not proposed to discuss the contents of these Tables fully, as each of the School Medical Inspectors has given a full report on the figures relating to his or her own district. In Tables I. and II. the results of the routine inspections are given for Boys and Girls separately, and Table III. gives the combined results for both sexes. It will be seen that 6,156 boys and 6,074 girls, making a total of 12,230, came under routine medical inspection in one or other of the four age groups. Of that large number 2.87 per cent. of the boys and 4.55 per cent. of the girls were described as "poorly nourished." These returns might be very disquieting were the expression "poorly nourished" synonymous with "under-fed," but of course that is not so, the condition in children being more often the result of improper or injudicious feeding, and being sometimes due also to ill-health.

The percentage of children with verminous head has markedly decreased as a result of medical inspection, being now considerably lower than is the percentage of children found with dirty body.

One will be struck with the similarity in the figures representing the condition of the teeth of the Boys and Girls, showing, as they do, that approximately eighty per cent. of the children (boys as well as girls) had more or less of their teeth carious.

The figures fairly well demonstrate the magnitude of the problem of the teeth of our school children. At least eighty per cent. of our school children require the Dentist's attention. Now there are enrolled in our schools about 31,000 children, of whom, therefore, about 24,800 would require to have their teeth treated. If it be assumed as a fair average that each of the latter number has three or four carious teeth, an approximation is reached as to what would require to be undertaken.

Two School Boards at least have seriously considered the tackling of the teeth problem. The foregoing facts are not mentioned to deter such, but rather to stimulate and brace them to a greater effort.

Turning to the figures representing the results obtained by the medical inspectors in determining the visual acuity of each



child as measured by Snellen's type, it is seen that of the 7, 10 and 13 age groups fully sixteen per cent. of the boys and 20 per cent. of the girls have defective vision. That also presents a serious problem, which, it is especially gratifying to be in a position to record, is now in a fair way to be very satisfactorily solved.

It might be asked why a fourth more of the girls as compared with the boys should be inflicted with defective vision. The excess of defect in the girls may, I think, be accounted for by environment and occupation. Boys are more prone to outdoor games and other exercises. Girls, as a rule, spend a greater amount of their time indoors, where the lighting is, of course, more or less imperfect as compared with the outside, and where also their range of vision is limited by the walls. Girls again are expected to learn to sew and knit, both admirable accomplishments, but too often acquired at the expense of eyestrain at a period of life when permanent visual defect may only too easily result. These, and similar causes, undoubtedly operate detrimentally on the eye, and especially on the developing eye.

Near the foot of Table III. it is recorded that six per cent. of the parents were present at the examination of their children. Although that is a small percentage, it is pleasing to know that it represents about a half more parents present than in the previous year. Parents receive due warning of the time when their children are to be examined, and they are cordially invited to be present, as thus the results of medical inspection are made fuller and better.

Table IV. shows the amount of work performed in the examination of non-routine scholars, (i.e.) scholars who are not of the prescribed ages. As non-routine children are cases selected because of some apparent or suspected defect, no useful purpose would be served by giving percentages. The non-routine examinations numbered 1950, and of these 959, or about a half, were reported to the parents because of some defect, and their names entered on non-routine cards, so as to ensure their coming under the observation of the school medical inspector at one or more subsequent visits.

Table V. shows the average heights and weights of the Stirlingshire boys and girls examined in the four prescribed age-groups, and it also gives the standard heights and weights. A glance at the table serves to show how little the two sets of figures vary, sometimes the one, sometimes the other, being slightly in excess.

Undoubtedly the most important work of the year has been the advance towards a fuller realisation of the amelioration of defects revealed by medical inspection. The majority of parents can be depended upon to have their children's defects

remedied as soon as known. Others again yield to a little friendly pressure by the school medical inspector, the school nurse, or the teacher. But in spite of all our efforts throughout the year, there still remained some children whose defects were uncared for. It was because of this that I thought it well to bring to bear upon such cases the great influence of each School Board, and I therefore presented the following memorandum on the subject to the County Secondary Education Committee:—

**“Memorandum on the Amelioration of Defects  
Found in School Children.”**

“(To be Considered by the School  
Medical Inspection Sub-Committee.)”

“As a result of School Medical Inspection, a large proportion of the children is found with defects of such a nature as to call for advice notes from the Medical Inspectors to the Parents. The Medical Inspectors make out lists of those children requiring urgent attention and send them to the school nurse, who calls at the homes as soon as possible. In the case of the others, where the carrying out of the advice involves time, e.g., in obtaining spectacles, the names are not at first entered on the nurse's list, but the children come under review by the School Medical Inspector at the next school visit.

“It is found that by these means much of the advice given receives proper attention. There is always, however, a residue of parents who cannot or will not do anything in the way of amelioration. We have arrived at a point when some agency other than those at present available seems necessary. It seems to me that the influence of the School Board could be very beneficially employed if lists of children whose treatment is being unnecessarily delayed were sent to the Board for consideration.

“In the County there has been as yet no move in the direction of instituting Children Care-Committees, which in many parts of England are doing excellent work in “follow-ing-up” cases found defective during School Medical Inspection, but whose amelioration is being neglected. The County already possesses in each School Board an ideal nucleus for a Children Care-Committee for the School Board area.

“The lists could be considered by the School Board from the point of view of the Children Care-Committee, and local pressure or local philanthropy brought to bear in cases where necessary. Such work would involve home visitation, as the



best results can only be obtained by getting into touch with the parents.

"As a matter of experience it is found that ladies are best adapted for this work, so that some Children Care-Committees are largely formed of co-opted ladies.

"[There is no need at present to enlarge further on the formation and working of such Committees, but it did seem opportune at this stage to bring the idea before the Secondary Education Committee for their earnest consideration.

"Whether or not the idea of Children Care-Committees is developed in the County, it would certainly make for fuller and more fruitful results if the lists mentioned were submitted to the School Boards concerned.

(Signed) T. ADAM."

As a result of the above memorandum (memo. B.) the committee agreed that action should be taken on the lines suggested. I have therefore arranged to transmit regularly to the School Boards concerned a list of names of those children whose defects are not ameliorated. It has already been found that the numbers of such children vary greatly in different districts, in some being comparatively few. Very gratifying results are in my opinion to be expected, as each School Board becomes, in fact, a Care-of-Children Committee.

In the case of children with defective vision something further seemed necessary on the part of the School Boards. It is well known how difficult it is, because of the expense, for many parents to have their children's defects of vision properly corrected. In most of such cases in the County of Stirling a proper examination of a child's eyes entailed several visits to a trained oculist. The expense of railway journeys had to be borne, and parents were forced to be off work in order that they might accompany their children. Some parents viewed the making of such arrangements with reluctance and even with dread. To overcome the inertia and indifference of others was even more hopeless and depressing.

The trouble and expense simply meant that in a very large proportion of the cases children with defective vision received no attention. To that extent the money spent on medical inspection could only be counted as so much loss, but that does not represent all the loss, for who will say that the Local Education Authorities are receiving full value for the money spent on education when the range of distinct vision of many of the children is limited by a relatively contracted circumference?

It amounted to this that, if school children's visual defects were to be efficiently dealt with, it behoved the Local Education

Authorities, (i.e.) the School Boards, to organise arrangements to that end, offering special facilities to parents. It really lies within the sphere of the Boards, as good sight is so essential to the best results in education. It was thoughts such as the foregoing which suggested to me the issue of the following memorandum (Memo. A.) for the consideration of the County Secondary Education Committee:—

**“Memorandum on the Examination of Eyesight  
with a View to the Correction of Defective Vision.**

“(To be Considered by the School  
Medical Inspection Sub-Committee.)”

“The records of School Medical Inspection show that the proportion of Elementary School children with visual acuity less than six-ninths, as tested by Snellen's type, is about twenty per cent. Where defective vision remains uncorrected the condition is very apt to be aggravated by continual eye-strain, and the baneful effect on educational progress is acknowledged by all. The problem with which we are confronted is how to place such handicapped children on a footing approaching equality with normal children.

“Probably, in the past, school conditions have done much to impair visual acuity, e.g., defective lighting, improper incidence of light, desks constructed on wrong principles or unsuitable for the children using them, etc. Plans of new Schools are submitted to the District Buildings Sub-Committee concerned and the County Medical Officer, who give very whole-hearted consideration to all points bearing on the well-being of the scholars and teachers, and who make suggestions wherever required. As a result, new schools will generally be free from structural defects tending to impair eyesight. In the provision of school furniture, however, there is no proper supervising central authority, so that standardisation of furniture seems impossible of attainment. Each School Board is left to its own devices in that respect, with results that often leave much to be desired from the point of view of the physiological requirements of the children.

“School Medical Inspection supplies one of the forces tending towards remedy of unsatisfactory conditions existing in many of the old schools. The aim in the matter of the improved lighting ought to be to benefit the scholars in the bulk by preventing, as far as possible, the acquirement or aggravation of eye defects in school, but even with all preventive precautions there will unfortunately be still a large number of scholars whose amelioration will require individual attention in the way of vision-testing and of prescribing for

spectacles where necessary. How is this vision-testing and prescribing to be accomplished in the County of Stirling?

"The County Secondary Education Committee are fortunate in having a solution of the problem demonstrated by the School Boards of Stirling and St. Ninians, to whom very great credit is due for their foresight and enterprise in providing for the physical and mental development of the children entrusted to their care. It came forcibly home to some of the members that much of the good of medical inspection is frittered away unless all cases of defective eyesight are remedied as far as possible. The eye defects in very many cases become progressively worse, and the leakage of educational effort increases *pari passu*. They therefore considered that it behoved them as educational custodians of the young to put all such defective children in the way of having a proper remedy. The Boards therefore entered into negotiations with Dr Gilchrist, oculist, Glasgow, and an eye-testing centre was fitted up in a room of the Stirling High School, where the eyes of school children with defective vision could be scientifically examined and the errors of refraction corrected by means of suitable spectacles. A bargain was also struck with a reputable optician in Stirling who agreed to supply good and serviceable spectacles at prices ranging from 1 6 to 2 6 (the price being governed by the lenses required), to school children producing a proper prescription.

"The School Boards undertook the responsibility of collecting the money through the Head Teachers from the parents, the money being occasionally forthcoming by instalments. They also agreed themselves to defray the cost of authenticated necessitous cases.

"What has been the result? In the Stirling Burgh Schools 159 children were found on medical inspection to have vision so defective as to require a full examination of their eyes. Of that number 10 refused either to have their eyes examined or to wear spectacles. The remaining 149 children were properly examined by the oculist, and suitable prescriptions were given. 132 of the 149 have got spectacles, the remaining 17 being treated for various external eye diseases.

"In the St. Ninians Parish schools, 69 children were found in need of having their eyes fully examined. Fifteen of these had not been examined when the holidays came on,—a few of the fifteen had refused examination. Of the 54 children examined and prescribed for, 51 have already obtained their spectacles, the other three being treated for external eye disease.

"How different is the tale throughout the rest of Dr Gardner's area. The children found here requiring spectacles

numbered 172. Of these 55 obtained spectacles in one way or another, but mostly in quite undesirable ways. What can be expected when many parents seem to know no better than that one pair of spectacles is as good as another? One child in fact was found wearing spectacles discarded by an elder sister. Of the 172, 117 got nothing done for their eyes.

"I am very definitely of opinion, however, that these 117 children incurred less risk of further injury to their eyesight than did the majority of the 55 who obtained spectacles in ways that could not be approved. In children especially a thorough objective examination of the eye is essential, and prescriptions for spectacles should be made out only after the errors of refraction have been exactly estimated by means of Retinoscopy. If the subjective method of examination is alone relied upon, spectacles may be supplied which will do the eyes irretrievable harm. It therefore behoves Education Authorities, intending to provide for their scholars facilities for having defective vision corrected, to see to it that the proper means are employed.

"In Dr Skinner's area the call is no less urgent for some provision to be made for correcting defective vision. During the first year of School Medical Inspection in Stirlingshire, Dr Skinner recommended 440 children for medical advice on account of defective vision; of these, 181 obtained glasses, and 11 were informed that glasses would be of no avail. In all, then, 192 children were attended to (43.6 per cent.). The remaining 248 (56.4 per cent.) were not attended to.

"Dr M'Vail had unquestionably in view some such suggestion as the present when, in the first report on School Medical Inspection in Stirlingshire, he wrote as follows:—"I crave the attention of all the School Boards to the mass of important facts and considerations set forth in the reports of the three inspectors. They will well repay study, and they raise important questions as to treatment which will require serious consideration by the Boards."

"In many ways Scotland, in an educational sense, is fortunate in having retained its School Board system, but when a question like the present, affecting a wide area, has to be considered, an administrative difficulty is encountered. Each School Board has to be approached separately, and it may or may not proceed to consider the matter. The great difficulty is for the School Medical Officer to get into intimate touch with the members of each School Board. This drawback, however, may, to a large extent, be made good by a strong representation on the subject by the Secondary Education Committee. If the School Boards, having considered the matter, conveyed their findings to the Secondary Education Committee, it would be preferable if the latter could enter

into negotiations with the Oculist, details as to suitable centres, etc., being left till a later date.

"The matter of seeing properly is of such fundamental importance in education that it lies with education authorities to take all reasonable measures to correct, as far as possible, defects of sight among their scholars.

(Signed.) T. ADAM."

The memorandum at once appealed to the Secondary Education Committee, who circularised the various School Boards in the County and advised that action be taken along the lines indicated.

It must be borne in mind that the Education (Scotland) Act, 1908, makes no provision for local Education Authorities spending anything from the rates on the medical treatment of school children. That being the case, such treatment required to be paid for by the parents. However, the Government, recognising that hardship might be caused in the case of necessitous children, assigned a grant of £7500 for the purpose of medical treatment of such cases in Scotland. Intimation of the grant was contained in circular 448, which reads as follows:—

"Circular 448.

"SCOTCH EDUCATION DEPARTMENT,

WHITEHALL, LONDON, S.W.,

18th April, 1912.

"Sir,

"I am directed to inform you that a sum of £7500 has been assigned for the purpose of medical treatment of school children in Scotland.

"I am to remind you that the expenditure of School Boards on Medical Inspection under Section 4, Education (Scotland) Act, 1908, is being aided by grants under Section 17 (6). The further grant now available is to be applied mainly for the medical treatment of necessitous children in terms of Section 6.

"The Department have under consideration the question of how this grant can be most equitably and most usefully distributed, and it would materially assist their deliberations if you can let them know, at your early convenience, and in any case not later than 10th May, what amount (if any) your Board have expended during the year ended 31st ultimo in providing medical treatment for necessitous children under Section 6, Education (Scotland) Act, 1908, and also what amount (if any) they estimate that they may require to expend in a similar way during the year ending 31st March, 1913.



"The Department are at the same time prepared to consider the question of making grants in aid of open-air schools for children suffering from tuberculosis or other ailments requiring open-air treatment or in aid of any similar arrangement for improving the health of school children. They will be glad to have before them the proposals of any Boards which may be contemplating arrangements of the special character indicated.

"I have the honour to be, Sir,

Your obedient servant,

(Signed.) J. STRUTHERS."

It will be noticed that Circular 448 stipulated that any sums given to the Boards from the grant referred to had to be expended before the 31st March, 1913.

Kilsyth School Board almost immediately responded to memorandum A, being further stimulated no doubt by the promise of a Government grant. Arrangements were made with an oculist, by which many Kilsyth children benefited.

The fruits of Memorandum A were slow in ripening in other parts of the County, but if slow they have been sure, so that very shortly we shall find that as good work is being accomplished in the Falkirk district as has been for some time going on in and around Stirling. For that purpose there has been firmly established for the Falkirk district a joint Medical Treatment Committee comprising members from the following School Boards:—Falkirk Burgh, Falkirk Landward, Larbert, Grangemouth, Airth, Denny and Dunipace.

Much of the credit for the formation of this joint Committee is due to Mr Marshall, who issued a most instructive and convincing memorandum pointing out the advantages to be derived from such a combination.

It is to be regretted that the School Boards of Slamannan and Muiravonside held aloof from the combine, under the belief, which I think mistaken, that the adoption of such measures meant another unwelcome call on the local rates. In another year these Boards will probably see to it that such of their children as suffer from defective vision are not placed at a disadvantage as compared with the children of neighbouring Boards.

In concluding my remarks regarding the arrangements made for medical treatment in our schools, I may say that the Scottish Education Department issued a second circular (448a) announcing the assignment of a further grant of £7500 for the treatment of necessitous school children in Scotland, a stipulation being that any sums allocated to School Boards



must be expended before the 31st January, 1914. It may be reasonably expected, I think, that the system of grants for medical treatment will be continued, and that, as the medical treatment committees gain experience, their work will become fuller and even more beneficial.

During the year the School Medical Inspectors repeatedly informed me that, when children left one school and were enrolled in another, the medical record cards made out for these children in the first school were, in many instances, not transmitted to the other school. Memorandum C was written as follows with the object of having the record cards of such children sent to the schools in which they had become enrolled.

**“Memorandum on the Transference of Scholars’  
Record-Cards from One School to Another.”**

Each scholar’s Record-Card is meant to present a continuous record of the health of the child throughout his school life. For that purpose spaces are provided for entries by the School Medical Inspector at four stated periods of the child’s life, and oftener if necessary.

“It is very important that the child’s Record-Card be maintained intact, and, therefore, if the child should leave one school and be enrolled in another his Record-Card should follow him.

“To minimise the risk of the Record-Card being lost, it is best that its transference be arranged by the two Head Teachers. Below is a draft of a formal letter which might be used by Head Teachers in connection with the transference of Record-Cards from one school to another, thus:—

“To the Head Teacher,	From the Head Teacher,
..... Department,	..... Department,
..... School.	..... School.

Dear Sir,

Medical Inspection of School Children.

A ..... B ....., aged .....years, formerly in attendance at ....., has been enrolled as a pupil here. Will you, therefore, please forward to me his/her Medical Record-Card, in order that it may be inserted in the Card Index Cabinet of this School.

Yours faithfully,

....., Head Teacher.

“The Head Teacher of the child’s first School, on receipt of the above letter, would, as soon as possible, transmit the

Record-Card to the Head Teacher of the second School, the letter being retained by the Head Teacher of the first School in his Card-Index Cabinet as a voucher for having sent on the Record-Card as requested.

(Signed.) T. ADAM."

The recommendations contained in Memorandum C were readily approved, and arrangements made for the transference of Medical Record-Cards where necessary.

There is one other matter regarding which I should like to say a word. While visiting some schools, I have been struck by the comparative frequency with which classes of children are to be seen sitting with arms folded. One had thought that this old-fashioned but very pernicious practice had been entirely abolished. Swedish drill and other exercises are carefully taught in our schools with the object mainly of correcting faulty attitudes, and of teaching children how to bear themselves. Deep breathing is also taught, which is most useful in expanding the chest and so aerating the more thoroughly even the minute ramifications of the respiratory tree.

No one who knows, doubts the benefit accruing to our school children from the regular practice of such exercises. The whole system is improved in tone, and the organs of the body perform their several functions with all the greater efficiency. The chest is especially benefited, so that its powers to resist disease are increased, and thus may be raised an effective barrier to the invasion of that insidious disease, pulmonary tuberculosis or consumption.

If a child is made to sit with arms folded, the shoulders are brought more or less forward, while the internal borders of the scapulae (shoulder-blades) are caused to project behind. In such a cramped position of the chest proper deep respiration becomes an impossibility, and, if it is tried, the effort tends to accentuate the wrong position, because the arms, acting as a constricting band, prevent chest expansion in front, thus causing undue expansion in other directions, e.g., the back of the chest, with still greater projection of the shoulder blades.

Undoubtedly such an attitude does much to counteract the good effect of useful exercises. It should be constantly remembered that the child is at an age when he is most readily moulded, physically as well as mentally and morally, and that, while a wrong set may be easily acquired in the sapling, it may be impossible of correction in the tree.

THOMAS ADAM,  
School Medical Officer.

TABLE I.

Analysis of the Results of Routine Medical Inspection, 1912-13.

## BOYS

CONDITIONS FOUND.	5 Age Group.		7 Age Group.		10 Age Group.		13 Age Group.		Total Com- bined Ages.	
	No. of Child- ren.	Ratio per cent.	No. of Child- ren.	Ratio per cent.	No. of Child- ren.	Ratio per cent.	No. of Child- ren.	Ratio per cent.	No. of Child- ren.	Ratio per cent.
No. Examined, - - - - -	1584		1806		1503		1263		6156	
*Poorly Nourished, - - - - -	26	1.64	45	2.49	80	5.32	26	2.06	177	2.87
*Vermineous Head, - - - - -	18	1.14	7	.89	5	.38	1	.08	31	.50
*Dirty Body, - - - - -	31	1.96	32	1.77	42	2.79	84	2.69	189	2.25
Carious Teeth * { 1-4, - - - - -	597	37.67	770	42.66	871	57.92	745	59.00	2983	48.32
* { 5-8, - - - - -	447	28.21	556	30.83	865	57.47	198	15.78	1566	25.37
* { 9 and over, - - - - -	109	6.88	186	10.30	37	2.46	15	1.19	347	5.62
*Mouth Breathing, - - - - -	14	.88	20	1.11	11	.78	2	.13	47	.76
*Enlarged Tonsils, - - - - -	223	14.39	249	13.79	161	10.71	149	11.80	787	12.75
*Adenoids, - - - - -	20	1.26	28	1.55	18	.86	3	.24	64	1.04
*Enlarged Glands, - - - - -	212	13.38	279	15.46	161	10.71	91	7.21	743	12.04
*External Eye Disease, - - - - -	67	4.08	89	4.98	64	4.26	36	2.85	256	4.15
*Defective Vision { One Eye, - - - - -	(Not		176	9.75	144	9.58	96	7.60	416	6.70
{ Both Eyes, - - - - -	Examined).		141	7.81	105	6.98	80	6.34	326	5.28
*Ear Disease, - - - - -	32	2.02	27	1.50	25	1.66	18	1.43	102	1.65
*Defective Hearing, - - - - -	6	.38	10	.55	11	.73	5	.40	32	.52
*Defective Speech, - - - - -	13	.82	15	.88	18	.86	24	1.90	65	1.05
*Mentally Defective, - - - - -			2	.11	5	.33			7	.11
*Abnormal Condition of Heart, - - - - -	25	1.58	26	1.44	14	.93	14	1.11	79	1.28
*Abnormal Condition of Lungs, - - - - -	56	3.53	25	1.39	11	.78	10	.80	102	1.65
*Chorea, - - - - -	1	.06							1	.02
*Other Nervous Diseases, - - - - -	4	.25	6	.33	6	.40	5	.40	21	.34
*Tuberculosis { Pulmonary, - - - - -			2	.11	1	.07			3	.05
{ Other Forms, - - - - -	5	.32	9	.50	5	.30	3	.24	20	.32
*Rickets, - - - - -	18	1.14	23	1.27	6	.40	3	.24	50	.81
*Deformities, - - - - -	43	2.71	65	3.60	49	3.26	24	1.90	181	2.93
*Skin Diseases, - - - - -	31	1.96	16	.89	18	1.20	6	.48	71	1.15
*Infectious Diseases, - - - - -	4	.25			1	.07			5	.08
*All Other Diseases and Defects, - - - - -	50	3.16	34	1.88	27	1.80	24	1.90	135	2.19
Unvaccinated Children, - - - - -	193	12.18	97	5.37	94	6.25	69	5.46	453	7.34
Mothers Employed Away, - - - - -	22	1.39	46	2.55	28	1.86	33	2.61	129	2.09
Children Employed, - - - - -					79	5.25	247	19.56	326	5.28
Clothing—Not Satisfactory, - - - - -	20	1.26	39	2.16	42	2.79	16	1.27	117	1.90
Footgear—Not Satisfactory, - - - - -	18	1.14	22	1.22	33	2.19	11	.87	84	1.36
Parents Present, - - - - -	165	10.41	112	6.20	47	3.13	16	1.27	340	5.51
Consumption in Family, - - - - -	12	.76	11	.61	21	1.40	23	1.82	67	1.09
Already under Medical Attention, - - - - -	15	.95	17	.94	21	1.40	12	.95	65	1.05
No. of Defective Children, - - - - -	970	61.21	1206	66.81	860	57.19	598	47.36	3634	58.87
(i.e., with conditions marked thus *)										

(i.e., with conditions marked thus \*)



7.—F. Average Heights and Weights in Inches and Pounds.

13A

SCHOOL MANAGEMENT AREA.	BOYS.																				GIRLS.																												
	Entrants.				Age 8.				Age 12.				Age 16.				Entrants.				Age 8.				Age 12.				Age 16.																				
	Number Examined.	Average Age.	Height.		Weight.		Number Examined.	Average Age.	Height.		Weight.		Number Examined.	Average Age.	Height.		Weight.		Number Examined.	Average Age.	Height.		Weight.		Number Examined.	Average Age.	Height.		Weight.		Number Examined.	Average Age.	Height.		Weight.														
			Anthropometric Standard.	Anthropometric Standard.	Anthropometric Standard.	Anthropometric Standard.			Anthropometric Standard.	Anthropometric Standard.	Anthropometric Standard.	Anthropometric Standard.			Anthropometric Standard.	Anthropometric Standard.	Anthropometric Standard.	Anthropometric Standard.			Anthropometric Standard.	Anthropometric Standard.	Anthropometric Standard.	Anthropometric Standard.			Anthropometric Standard.																						
Cumbernault,	97	5 $\frac{1}{2}$	41-4	41-0	39-0	39-0	61	8 $\frac{1}{2}$	49-8	47-0	56-1	54-0	52	12 $\frac{1}{2}$	55-1	54-0	73-1	70-7	..	..	..	64-3	..	119-0	53	5 $\frac{1}{2}$	41-5	40-8	39-2	39-0	59	8 $\frac{1}{2}$	49-6	46-0	55-1	52-1	33	12 $\frac{1}{2}$	55-8	55-7	75-0	70-4	..	..	..	61-7	..	113-1	
Kirkintilloch,	133	5 $\frac{1}{2}$	41-4	..	40-0	..	91	8 $\frac{1}{2}$	48-1	..	58-4	..	169	12 $\frac{1}{2}$	55-2	..	75-6	..	..	..	..	..	..	..	148	5 $\frac{1}{2}$	41-6	..	39-9	..	77	8 $\frac{1}{2}$	48-3	..	53-3	..	187	12 $\frac{1}{2}$	55-5	..	75-2	..	..	..	..	..	..		
New Kilpatrick,	52	5 $\frac{1}{2}$	41-4	..	42-4	..	74	8 $\frac{1}{2}$	49-2	..	58-1	..	82	12 $\frac{1}{2}$	55-3	..	76-7	..	1	15 $\frac{1}{2}$	61-5	..	122	..	40	5 $\frac{1}{2}$	42	..	40-5	..	66	8 $\frac{1}{2}$	49-1	..	57-1	..	84	12 $\frac{1}{2}$	56-4	..	80-4	..	..	..	..	..	..		
Old Kilpatrick,	505	5 $\frac{1}{2}$	41-7	..	41-1	..	289	8 $\frac{1}{2}$	48-5	..	54-6	..	529	12 $\frac{1}{2}$	54-3	..	71-5	..	28	16 $\frac{1}{2}$	64-6	..	118-8	..	608	5 $\frac{1}{2}$	41-6	..	39-3	..	327	8 $\frac{1}{2}$	48-3	..	52-4	..	526	12 $\frac{1}{2}$	58-8	..	71-8	..	16	16 $\frac{1}{2}$	60-0	..	110-4	..	..
Dumbarton,	209	5 $\frac{1}{2}$	42-1	..	41-1	..	189	8 $\frac{1}{2}$	48-0	..	53-9	..	268	12 $\frac{1}{2}$	54-0	..	70-0	..	29	16 $\frac{1}{2}$	64-9	..	121-7	..	187	5 $\frac{1}{2}$	41-6	..	39-1	..	195	8 $\frac{1}{2}$	47-7	..	50-7	..	246	12 $\frac{1}{2}$	55-1	..	72-5	..	57	16 $\frac{1}{2}$	62-0	..	106-3	..	..
Vale of Leven,	176	5 $\frac{1}{2}$	42-4	..	41-3	..	188	8 $\frac{1}{2}$	48-6	..	54-7	..	182	12 $\frac{1}{2}$	56-0	..	72-8	..	..	13 $\frac{1}{2}$	62-3	..	108-9	..	172	6	42-6	..	40-2	..	187	8 $\frac{1}{2}$	47-7	..	51-2	..	166	12 $\frac{1}{2}$	55-2	..	71-3	..	12	16 $\frac{1}{2}$	62-7	..	111-3	..	..
Helenburgh,	80	5 $\frac{1}{2}$	43-3	..	42-3	..	75	8 $\frac{1}{2}$	49-8	..	54-0	..	94	12 $\frac{1}{2}$	54-8	..	72-6	..	5	16 $\frac{1}{2}$	63-5	..	111-4	..	80	5 $\frac{1}{2}$	42-5	..	40-5	..	87	8 $\frac{1}{2}$	48-8	..	51-2	..	94	12 $\frac{1}{2}$	56-7	..	75-5	..	10	16 $\frac{1}{2}$	61-5	..	113-5	..	..
Total,	1321	5 $\frac{1}{2}$	41-0	41-0	41-1	39-0	967	8 $\frac{1}{2}$	48-8	47-0	55-5	54-0	1370	12 $\frac{1}{2}$	55-0	54-0	73-2	70-7	65	16-0	63-3	64-3	116-5	119-0	1238	5 $\frac{1}{2}$	41-0	40-8	39-8	39-0	608	8 $\frac{1}{2}$	48-5	46-6	53-0	52-1	1336	12 $\frac{1}{2}$	56-2	55-7	74-5	70-4	95	16 $\frac{1}{2}$	61-8	61-7	110-4	113-1	





# TABLE III.

Analysis of the Results of Routine Medical Inspection,  
1912-13.

## TOTAL COMBINED AGES AND SEXES.

CONDITIONS FOUND.	No. of Children.	Ratio per cent.
No. Examined, . . . . .	12230	
*Poorly Nourished, . . . . .	453	3.70
Verminous Head, . . . . .	116	.95
Dirty Body, . . . . .	268	2.19
Carious Teeth* { 1-4, . . . . .	5987	48.95
5-8, . . . . .	3102	25.37
* { 9 and over, . . . . .	710	5.80
*Mouth Breathing, . . . . .	88	.72
*Enlarged Tonsils, . . . . .	1579	12.83
*Adenoids, . . . . .	128	1.05
*Enlarged Glands, . . . . .	1232	10.07
*External Eye Disease, . . . . .	503	4.11
*Defective Vision { One Eye, . . . . .	898	9.92
{ Both Eyes, . . . . .	779	8.60
*Ear Disease, . . . . .	193	1.58
*Defective Hearing, . . . . .	61	.52
*Defective Speech, . . . . .	95	.78
*Mentally Defective, . . . . .	12	.09
*Abnormal Condition of Heart, . . . . .	159	1.30
*Abnormal Condition of Lungs, . . . . .	211	1.73
*Chorea, . . . . .	2	.02
*Other Nervous Diseases, . . . . .	38	.31
*Tuberculosis { Pulmonary, . . . . .	11	.09
{ Other Forms, . . . . .	45	.37
*Rickets, . . . . .	79	.65
*Deformities, . . . . .	295	2.42
*Skin Diseases, . . . . .	144	1.18
*Infectious Diseases, . . . . .	9	.07
*All Other Diseases or Defects, . . . . .	276	2.26
Unvaccinated Children, . . . . .	841	6.87
Mothers Employed Away, . . . . .	225	1.84
Children Employed, . . . . .	394	3.22
Clothing—Not Satisfactory, . . . . .	190	1.56
Footgear—Not Satisfactory, . . . . .	121	.99
Parents Present, . . . . .	734	6.00
Consumption in Family, . . . . .	131	1.07
Already under Medical Attention, . . . . .	132	1.08
No. of Defective Children, . . . . .	7155	58.51
(i.e., with conditions marked thus *)		

# TABLE IV.

Analysis of the Results of Non-Routine Medical Inspection. 1912-13.

ALL AGES.		BOTH SEXES.	
CONDITIONS FOUND.			No. OF CHILDREN.
No. Examined,	.	.	1950
No. Entered on Card,	.	.	939
*Poorly Nourished,	.	.	8
Verminous Head,	.	.	73
Dirty Body,	.	.	34
*Carious Teeth (4 and over),	.	.	6
*Mouth Breathing,	.	.	20
*Enlarged Tonsils,	.	.	40
*Tonsilitis,	.	.	4
*Adenoids,	.	.	38
*Enlarged Glands,	.	.	22
*External Eye Disease,	.	.	172
*Defective Vision	{ One Eye,	.	38
	{ Both Eyes,	.	206
*Ear Disease,	.	.	72
*Defective Hearing,	.	.	21
*Defective Speech,	.	.	22
*Mentally Defective,	.	.	11
*Abnormal Condition of Heart,	.	.	14
*Abnormal Condition of Lungs,	.	.	21
*Chorea,	.	.	1
*Other Nervous Diseases,	.	.	16
*Tuberculosis	{ Pulmonary,	.	4
	{ Other Forms,	.	13
*Rickets,	.	.	6
*Deformities,	.	.	19
*Skin Diseases,	.	.	72
*Infectious Diseases,	.	.	11
*All other Diseases or Defects,	.	.	22
Parents Present,			11
Already under Medical Attention,			57

**TABLE V.**  
HEIGHT IN INCHES.

				Age 5	Age 7	Age 10	Age 13
Boys—Stirlingshire,	.	.	.	41.8	45.6	51.6	56.7
„ Standard, .	.	.	.	41.0	46.0	51.8	56.9
Girls—Stirlingshire,	.	.	.	41.3	45.4	51.1	57.3
„ Standard, .	.	.	.	40.8	44.5	51.1	57.8

WEIGHT IN POUNDS.

Boys—Stirlingshire,	.	.	.	41.5	49.2	61.3	82.1
„ Standard, .	.	.	.	39.9	49.7	67.5	82.6
Girls—Stirlingshire,	.	.	.	39.9	47.6	62.8	84.1
„ Standard, .	.	.	.	39.6	46.7	62.0	87.0

## REPORT BY DR GARDNER.

This report deals with the figures obtained from Medical Inspection from August, 1912, to July 31st, 1913. The examinations were conducted on similar lines to those of previous years. I take this opportunity of again thanking the teachers for their able and hearty co-operation in the work of Medical Inspection.

**Number of Visits to Schools and Departments.**— Every school has been visited twice for the purpose of routine inspection. After the summer vacation, the new admissions and those who will leave during the current year are examined, and after the New Year the sevens and tens are examined. In this way all the required age groups are overtaken.

Twenty-two visits were paid to schools regarding infectious disease, and many hundreds of children were examined for undetected infectious disease. Scarlet Fever was prevalent in Larbert District and East Plean in the month of June, and German Measles broke out after Easter in Stirling Burgh and spread to Cambusbarron, Whins of Milton, and Bannockburn. At the other end of the district it was prevalent in Banton, Banknock, and Longcroft at the same time.

Mumps broke out in epidemic form in Kippen and Arnprior in June also.

46 surprise visits were paid to examine verminous children.

### NUMBER EXAMINED.

Infant Boys, aged	5	...	...	...	740
Infant Girls, aged	5	...	...	...	772
Junior Boys, aged	7	...	...	...	796
Junior Girls, aged	7	...	...	...	759
Junior Boys, aged	10	...	...	...	639
Junior Girls, aged	10	...	...	...	663
Senior Boys, aged	13	...	...	...	566
Senior Girls, aged	13	...	...	...	593
Non-routine, all ages	...	...	...	...	732
Total,					6260
Total Routine,					5528

Last year the number was 4962, but this year more new admissions were examined as the number was not limited to five-year-olds. Any child, not previously examined, was examined on admission, even although he were six; if he were seven, he

was put among the seven-year-old group. Last year some were missed out because the teachers thought if they were six they were not of the proper age.

**Clothing.**—Again the great amount of clothing worn by children is a noticeable feature. One boy of seven had been ill with cold, and when he came back to school he had on three jerseys, two pairs of combinations, a flannel shirt, and a woollen under-vest, besides a pair of trousers, boots, stockings, muffler, and overcoat. His neighbour in class came with a ragged cotton shirt, ragged suit, no boots, no overcoat, in fact he was standing shivering and was so cold and wet he was sent home. Another girl, seven years of age, had all her clothes pinned on, she had several layers of ragged clothing pinned about her, and her bodice was a woman's jacket.

Twenty-five children were found with insufficient clothing, while 628 were rather ragged, and 122 were **very** ragged. The half of one boy's chest was bare. The cleanliness of clothing, although an improvement on last year, was still far from satisfactory. 654 wore fairly clean clothes, and the clothing of 143 was very dirty. The footgear was not bad, although 39 were barefooted in winter time, and 155 wore boots in a state of disrepair; but on the whole both clothing and footgear were better than in previous years.

**Previous Medical History** shows no difference from former years. Measles easily heads the list, and whooping cough makes a good second. I think that parents are gradually coming to realise that growing pains are of sufficient consequence to call for attention. We get many children with pathological conditions of the heart, the result of rheumatism and growing pains.

**Work Before and After School.**—One girl of seven works out of school hours. Forty boys of ten years of age and five girls of a like age work as messengers. One hundred and forty-two boys and 28 girls of 13 years of age earn money to swell the family exchequer.

**Nutrition.**—The nutrition of the children was fairly good, 61 per cent. of the boys and 58.7 per cent. of the girls were above the average. The boys again showed a better average of nutrition than the girls. Perhaps there are more small delicate girls than boys. Although the boys are more difficult to rear than girls, during the early years of life, they seem to be more sturdy during school life.

Boys with fairly good nutrition number 818, or a percentage of 26.1. Boys with bad nutrition number 120, or a percentage of 4.3. Girls with fairly good nutrition number 942, or a percentage of 33.7. Girls with bad nutrition number 214, or a percentage of 7., practically the same as last year. Taking

separate age groups, the ten-year-olds show worst figures. At ten the percentage of fairly-well nourished is 46, and badly nourished 11, whilst among the seven-year-olds the percentages are 24 fair and 4 bad. The fives are well-up in weight and height, but in this age-group several new admissions are classed whose ages may be six. Ten years is the only age-group where weight is below standard, except 13-year-old girls, who are about 3 lbs. below normal, but many quite healthy girls are not as big as they ought to be at 13, and yet attain to a normal physical development a year or two later.

#### HEIGHT IN INCHES.

				Age 5	Age 7	Age 10	Age 13
Boys—Stirlingshire,	-	-	-	41·9	45·6	51·5	56·5
„ Standard,	-	-	-	41·0	46·0	51·8	56·9
Girls—Stirlingshire,	-	-	-	41·3	45·4	51·1	57·4
„ Standard,	-	-	-	40·8	44·5	51·1	57·8

#### WEIGHT IN LBS.

Boys—Stirlingshire,	-	-	-	42·2	49·7	64·6	81·9
„ Standard,	-	-	-	39·9	49·7	67·5	82·6
Girls—Stirlingshire,	-	-	-	40·4	48·3	62·4	84·7
„ Standard,	-	-	-	39·6	46·7	62·0	87·0

**Cleanliness of Head and Body.** — Compared with last year, the cleanliness of both head and body is improving, whilst fewer children were found with actual vermin. On looking over the Nurse's Registers, one is struck with the fact that ever since Medical Inspection began there are in several schools families who seem to be always in trouble over vermin. Time and again they are warned and slightly improve under supervision and compulsion but soon again relapse into their former state. The excuses are many and varied.

Often the women state they are doing the best they can, that their houses are dark and the washhouses unavailable, that they are toiling from morn till eve—and, in a few cases, this may be true—yet, in the country districts where the shepherds and farm labourers have small wages and inconvenient houses, I seldom find any verminous, ragged, or dirty children, and never find a child with a dirty face or neck.

Great improvement has been made in some schools—where there were several verminous children last year, there is not



one this year. One or two infant mistresses are instituting an inspection of hands, faces, pinafores, and boots first thing every morning. Such a practice cannot be too highly commended.

### VERMINOUS CHILDREN.

School Board Area.	No. of Children	No. of Visits	No. Cleansed after a few Visits	No. Improved	No. Reported to School Board.
Denny, ... ..	31	121	16	15	5
Dunipace, ... ..	5	13	2	3	0
Kilsyth (Landward) & Kilsyth R.C.,...	26	59	3	23	18 N.S.P.C.C.
Kippen, ... ..	3	4	3	0	0
Fintry, ... ..					
Gargunmock, ... ..					
Larbert, ... ..	68	293	33	35	15 (2 three times reported)
Logie, ... ..	1	4	1	0	0
St. Ninians, ... ..	111	473	95	16	13 (6 were three times reported)
Stirling Burgh, ... ..	78	251	40	38	26 (2 three times reported)
Total, ... ..	323	1218	193	130	60 (10 were 3 times reported)

I thought it better this year to draw out a table of "verminous children," and one can get a clearer idea of the state of matters. The number of children, amongst routines and non-routines, found verminous was 323. Several of these children were repeatedly found verminous, but they are just entered once for the year. Some families required many visits before making any attempt at cleansing the children, and some are never quite clean although they are much improved from their original condition. It will be seen that 60 children were reported to their School Board, and of these 10 children were reported three times.

There were four prosecutions.

One family of three boys who had a moonlight flitting in May, last year, were at once recognised after the holidays when they were re-entered in another school.

After the Sheriff put the parents on probation, the children were cleansed and tidied, and have never been found dirty or ragged since, although they have been examined many times.

In the second case, there was a family of two boys and a girl at school, and two little ones under school age. On behalf of the little ones, I asked the N.S.P.C.C. Officer to look at the house and find out matters which were outside our jurisdiction.

The mother was dead, and the family have been under observation for three years and always saved themselves from prosecution by cleaning up at the eleventh hour. A year ago the father was apprehended by the police for failing to provide house and shelter for the family, and at that time he was sentenced to prison. This year their state was dreadful, they being usually in a verminous condition, and with sores on heads, faces and feet. They had one bed, although in the home there were five younger children, two elder ones and the father. After a month's probation, the father was sentenced to 30 days in prison, and the children have been taken by married step-brothers or sisters who have promised to look after them.

A third case was that of a family of two boys and a girl who came from Airdrie. They were only two weeks in Stirling and were begging every day from teachers and scholars. It was found that the father was a habitual loafer and had been apprehended several times before for neglect of his children. They were taken away and sent to Industrial Schools.

A fourth case reported to the School Board concerned four children of one family. Their outer garments used to be tidy, but when these were removed their underclothing was very verminous. The mother was a highly-strung neurotic woman who became almost hysterical if spoken to about the children's state. One day I excluded the four children for two days to be thoroughly cleansed. Next day the mother appeared at school and stated that they were all clean and wished them re-admitted. I examined them in presence of the mother and a teacher. On removal of one child's jersey, I saw several pediculi and said to the mother "What is this, and this, and this?" She looked at them and gave them a brush off with her hand and said, "just yin or twa." I next examined the boy, whom I found in a similar condition.

There were 97 boys with nits and 22 with actual vermin on their heads. The percentage with nits was 3, and with vermin 0.8. A different tale is unfolded when we look at the girls' numbers. There 1324, or 47 per cent., were found with nits and 36, or 1.2 per cent., with vermin. Of course, nits are vermin in the sense that they are the eggs of vermin, and it must be very difficult to keep girls' heads clean from nits in the large schools. Ninety-seven boys and eighty-six girls, amounting to 3 per cent. in each case, were found with vermin of the body, while thirty-five boys and thirty-nine girls were found with dirty bodies.

TABLE OF CLEANLINESS.

		HEAD.				BODY.		
		Medium.	Dirty.	Nits.	Vermin.	Medium	Dirty.	Vermin
2741	Boys.							
	5 years ...	89	7	26	12	133	7	37
	7 years ...	68	7	45	6	88	8	18
	10 years ...	59	3	15	3	87	9	24
	13 years ...	61	5	11	1	86	11	18
	Total ...	277	22	97	22	274	35	97
2787				3%	.8%		1%	3%
	Girls.							
	5 years ...	27	2	302	17	130	14	24
	7 years ...	25	1	375	16	120	9	30
	10 years ...	11	0	348	3	114	7	15
	13 years ...	13	1	299	0	153	9	17
	Total ...	76	4	1324	36	517	39	86
	Grand Total ...	353	26	1421	58	791	74	183
				47%	1.2%		1.3%	3%

It will be seen that Stirling Burgh had 104 verminous children last year. This year there are only 78, and of these 30 are old-standing offenders. Several masters, both in the County and in Stirling Burgh, have refused admittance to ragged, dirty children, and have informed the School Medical Inspection Department so that Nurse could visit the home and send word when the children were clean and fit to be admitted to school.

**Teeth.**—No direct steps have been taken in Stirlingshire to deal with the state of the children's teeth, but much advice and direction have been given in this matter.

We insist on children with suppurating teeth or gums having attention, but further than that we cannot go, as very few indeed could afford to pay dentists' fees, even if there were enough dentists to undertake the work.

DENTITION TABLE.

No. Examined.			Good.	Decayed 1 to 4.	Decayed 5 to 8.	Decayed 9 & over.
Boys						
5 years	...	740	218	328	179	15
7 years	...	796	199	403	188	6
10 years	...	639	133	395	109	2
13 years	...	566	158	346	57	5
Total	...	2741	708	1472	533	28
Girls						
5 years	...	772	211	356	186	19
7 years	...	759	177	382	185	15
10 years	...	663	161	393	107	2
13 years	...	593	140	358	91	4
Total	...	2787	689	1489	569	40
Grand Total			1397	2961	1102	68
Percentage			25	53	19	1.2

The figures are practically similar to those of last year.

In one country school a lady gave a prize to the boy who had made most progress in cleansing his teeth. One boy had good teeth, but they were very dirty; with the prize in view, he got a tooth brush and cleaned them regularly night and morning, so that now he has a lovely set of white teeth.

**Nose and Throat.**—As before, a great many children were found suffering from Nasal Catarrh, so that the absence of handkerchiefs is a thing to be deplored. Several children had adenoids or tonsils, or both, removed, although many parents take months to make up their minds to the needful operation.

## NOSE AND THROAT.

			No. Examined.	Enlarged Tonsils.	Adenoids.	Enlarged Glands
Boys.						
5 years	...	...	740	102	1	55
7 years	...	...	796	102	1	62
10 years	...	...	639	67	1	63
13 years	...	...	566	61	...	31
Total	..		2741	332	3	211
Girls.						
5 years	...	...	772	108	2	15
7 years	...	...	759	112	3	48
10 years	...	...	663	85	1	32
13 years	...	...	593	59	3	22
Total	...		2787	364	9	117

**External Eye Disease.**—Squint still takes premier place in External Eye Diseases.

## SQUINT.

			No Examined.	No with Squint
Boys.				
5 years	...	...	740	11
7 years	...	...	796	11
10 years	...	...	639	8
13 years	...	...	566	9
Total	...		2741	45
Girls				
5 years	...	...	772	13
7 years	...	...	759	14
10 years	...	...	663	10
13 years.	...	...	593	7
Total	...		2787	44

14 cases of Squint amongst Non-Routines should be added, making a total of 93.

## EXTERNAL EYE DISEASE.

	No. Exam.	Bleph- aritis.	Other Diseases.	Conjunc- tivitis.	Corneal Ulcer.	Corneal Opacity.
Boys.						
5 years - -	740	10	7	3	...	...
7 years - -	796	8	7	2	1	4
10 years - -	639	6	4	2	...	1
13 years - -	566	2	3	...	...	...
Total -	2741	26	21	7	1	5
Girls.						
5 years - -	772	9	4	4	...	...
7 years - -	759	5	6	2	...	...
10 years - -	663	4	3	1	...	...
13 years - -	593	1	...	...	...	...
Total -	2787	19	13	7		

These cases of external eye disease are generally attended to at once. I usually give Nurse a note of them immediately after inspection and she goes to the home, so that no time is lost in getting medical advice.

In external eye diseases the old proverb holds very true—"A stitch in time saves nine."

**Vision.**—The same routine was followed as formerly.

## EYES.

	No. Examined.	One Eye Defective.	Both Eyes Defective.	Normal.
Boys.				
7 years . . .	796	118	76	602
10 years . . .	639	90	57	492
13 years . . .	566	51	44	471
Total . . .	2001	259	177	1565
Percentage .		12.9	8.8	77.9
Girls.				
7 years . . .	759	128	82	549
10 years . . .	663	92	94	477
13 years . . .	593	83	85	425
Total . . .	2015	303	261	1451
Percentage .		15.0	12.9	72.0

As regards Spectacle Provision, see Amelioration of Defects.



**Ear Defect** was present in 57 children, mostly due to wax or to purulent discharge. In many cases there was a history of discharge, although at the time of examination the discharge was not present.

Hearing was tabulated as "medium" in 100 cases and "bad" in 27 cases. It is very difficult to test hearing in many schools on account of the noises prevalent in school or its neighbourhood. At Dennyloanhead the machinery of a pit clanks all day not far from the school windows. Then the noise of neighbouring classes and varying "leavetimes" makes it almost impossible to test hearing accurately.

Stammerers appear to be about the usual number.

**Mental Condition.** — This year six mentally defective children were examined in school. One child was sent to a home for mentally defective children. She had been four years at an ordinary elementary school and had never progressed out of the Infant Stages. There were 164 classed as mentally dull or backward.

**Heart and Circulation.** — Again there are a goodly number of children suffering from some affection of the heart. Most of the seven-year-old group had been examined before, but all the tens, thirteens, and fives are fresh cases. Five children have been out of school for months undergoing medical treatment. The younger children appear to suffer most. Amongst them, 31 boys and 29 girls had some abnormality of the heart sounds, whilst among the tens and thirteens 9 boys and 12 girls were similarly afflicted. There is no difficulty in getting parents to have medical advice for a "weak heart." Several bad cases are regularly sent in for examination on each visit of the Inspector. One child whose heart condition had become much more serious, was sent to hospital at once and is now much better and back at school.

**Lungs.**—The number of children with Bronchial Catarrh was 106, whilst 10 were sent home, as unfit for school, suffering from Bronchitis. Three children suffered from Asthma, and eight had some other disease of the lung.

**Nervous System.**—There were two children suffering from Infantile Paralysis and five who had fits. One child who had paralysis of the left arm was advised to see a doctor. Her grandmother thought the child had a dislocated shoulder. She was told to encourage the child to use her arm and help her in the house work, using left arm alone. The child persevered and now has a much better use of her left arm. Her shoulder and spine are also better developed and straight.

**Tuberculosis.**—The children suffering from Tuberculosis in one form or another number 15. As I said before, children in an acute stage of this disease are not often found in school. They are too ill to attend school. One child had Phthisis. She was brought to school to be examined as she had been away with a cold. The teachers knew a great difference in her general appearance. From a plump rosy child, she had grown in a few months into a pale, puny little thing. She was not under treatment. I diagnosed phthisis, and sent her to her own doctor, but she was too late in going and died a few weeks after.

Another child had a small sore on her nose, and I advised her mother to have treatment. She went to her own doctor, who sent her to the Edinburgh Hospital for children, and she is at present undergoing treatment by tuberculin.

**Rickets.**—Sixty-seven children showed signs of Rickets. Most numerous were the pigeon chests, then came knock-knees and bow legs. Other diseases and defects numbered 134, including cases of anaemia 49, and hernia 10. Four cases of hernia went to hospital and underwent operation successfully.

**Skin Diseases** numbered 55. The most common was Eczema. Fifteen children had Ringworm, cattle being the source of infection in the case of at least one family. Eczema attacked 23 children, Impetigo 11, and there were various other forms of skin disease.

The number of forms issued to parents, requesting immediate treatment for some disease or defect, was 295: Teeth or suppurating gums 6, Verminous Head 47, Verminous Body or Clothes 61, Adenoids or Enlarged Tonsils 8; but Nurse called on many more, as a visit is found far more efficacious than a notice.

#### NURSES' VISITS.

Nurse Steel, who visited in Logie Parish, paid 34 visits—4 for vermin, 16 for defective sight, and 14 to children requiring medical treatment for some disease or defect.

Nurse Molloy visits in Stirling Burgh. She paid 508 visits—251 for vermin, 104 for defective sight, and 153 to children requiring medical treatment, i.e., 27 Enlarged Tonsils, 5 Adenoids, 15 Weak Hearts, 20 Ear Disease, and 86 for various conditions, such as Ringworm, Malnutrition, Anaemia, Curved Spine, etc. Nurse Gibson, who visits throughout the County, paid 1636 visits. 963 were for Vermin, 179 for Defective Sight, 68 for Enlarged Tonsils and Adenoids, 103 for Heart or Ear Disease, and 223 for various defects, such as Anaemia, Enlarged Glands, etc.

## AMELIORATION TABLE—DEFECTIVE SIGHT.

STIRLING BURGH.	No. requiring treatment.		No. treated by Specialist.	No. who got glasses.	No. who are waiting for Dr. Gilchrist.	No. who refused to wear glasses or undergo treatment.
	1st exam.	2nd exam.				
High School, ...	4	4	4	4	4	0
Allan's, ...	6	29	6	5	29	0
Abbey, ...	0	0	0	0	0	0
Craig's, ...	11	14	11	8	11	0
Episcopal, ...	2	3	2	2	3	0
Roman Catholic, ...	13	8	5	4	8	8 (6 last year's)
Territorial, ...	8	18	4	4	21	4 (3 last year's)
St. Ninians, ...	8	7	5	3	7	3 (3 last year's)
Total, ...	52	83	37	30	84	3 new, 12 last year's
		135				
ST. NINIANS PARISH.						
Bannockburn Public,	6	16	3	3	16	3
Roman Catholic, ...	2	3	0	0	3	2 (last year's)
Cambusbarron, ...	8	1	3	2	4	2 (last year's)
Cowie, ...	6	5	1	0	8	2 (left school)
Fallin, ...	10	3	3	3	3	7 (last year's)
Whins of Milton, ...	3	0	3	3	0	0
Plean, East, ...	13	11	8	5	11	4 (3 left school)
Plean, West, ...	3	1	1	1	1	2 (last year's)
Sauchie & Muirland,	0	0	0	0	0	0
Total, ...	51	40	22	17	46	22 (5 left school)
		91				
Kippen, Fintry, & Gargunnoch, ...	...	4	1	1	1	2 (left school)
Logie Parish, ...	11	9	3	3	16	1 (left school)
Total, ...	11	13	4	4	17	3 left school
		24				
		No. treated.			No. who did not get glasses.	
Denny Parish, ...	63	10	10	53 (3 left school)		
Dunipace, ...	3	0	0	3		
Kilsyth Landward & R.C., ...	13	8	8	5 (waiting for specialist)		
Larbert, ...	68	3	3	65 (10 left school)		
Total, ...	147	21	21	121		

We now turn to a consideration of the amelioration of these defects brought out by Medical Inspection.

As regards defective eyesight, Stirling School Board last year appointed Dr Gilchrist, Glasgow, to examine all children sent him by the School Medical Inspector, suffering from Defective Eyesight.

St Ninians School Board have joined the Stirling Board, and children from Logie, Gargunnoch, Kippen, and Fintry have also made arrangements to attend the High School, Stirling, on Dr Gilchrist's visits.

In the district under my care all Boards, with the exception of Denny, Dunipace and Larbert, have made an arrangement for the provision of spectacles for children with defective eyesight. Under the heading "number requiring treatment," I have put down two rows of figures. The first have been attended to or had the chance to go to Dr Gilchrist; the second list have been waiting until Stirling School Board could fix a time for Dr Gilchrist's visit. They will all be going in September, when I believe Dr Gilchrist is to be in Stirling.

Thus the number who got glasses must be counted from the first row. In Stirling Burgh the result is very good, 37 out of 52 having been treated, while 12 of last year's cases still refuse treatment. Three are new cases who may yet be persuaded to go to the Doctor.

Most of the 84 on the "waiting list" have promised to go in September.

In St Ninians Parish 22 attended out of 51, which is not such a good result, but here the schools are more scattered and it is difficult to get all the mothers into line after the date had been fixed for the specialist's visit. However, we have taken time by the forelock, and told them in good time and hope for a record turn out in September. Of the 22 who refused, 13 are last year's cases who mostly plead poverty, 5 have left school, and 3 refuse to get glasses although the children's eyes are very defective.

All the Bridge of Allan children have promised to get glasses with the exception of one boy, whose father took him to Glasgow Eye Infirmary and he was recommended to get glasses. The father refuses to let his son wear them.

Passing on to Denny, Dunipace and Larbert (Kilsyth has now a specialist) one finds a very different state of matters revealed. Out of the total 134 requiring treatment, only 21 have got glasses. The rumour had somehow got circulated that the School Boards were going to take the matter up, and I think that that accounts for the parents' inactivity. A great many

plead poverty, and in some cases where three or four members of one family require glasses it is nearly impossible to get them. In some cases the parents are utterly callous and never attempt to provide glasses or treatment either.

### CASES OTHER THAN EYES RE-EXAMINED.

SCHOOL BOARD.	Enlarged Tonsils		Adenoids		ABNORM'L Heart	Ear Disease.		Various	
	Got Treatment	Nothing done	Got Treatment	Nothing done	Received Attention	Got Treatment	Nothing done	Got Treatment	Nothing done
Denny, ... ..	3	6	2	1	6	6	1	20	3
Dunipace, ... ..	...	...	...	...	...	1	...	1	...
Kilsyth Landward & R.C., ...	...	...	...	...	...	1	...	1	1
Kippen, Fintry, Gargunnoch,	1	...	...	1	3	...	...	6	...
Larbert, ... ..	5	3	1	1	13	9	1	22	10
Logie, ... ..	...	1	...	...	1	2	...	3	1
St. Ninians, ... ..	1	4	2	1	5	1	6	32	11
Total, ... ..	10	14	5	4	29	20	8	85	26

A glance at the foregoing table shows that 10 had their tonsils removed, whilst 14 had no treatment; 5 had adenoids removed, and 4 had no treatment. Twenty-nine heart cases were all attended to, and 20 children with ear disease had treatment, whilst 8 got nothing done. Under "various" are such cases as short leg, anaemia, curved spine, kidney disease or the like. Eighty-five got treatment, whilst 26 were left untreated.

In Stirling Burgh all cases, including those with defective vision, were treated except 17 who were reported to the School Board. These cases consisted of—

Three St Ninians School children who require treatment for eye disease or defective vision;

Three Territorial School children who did not get glasses and two who had no treatment for suppurating gums;

Six Roman Catholic School children who did not get glasses;

Two Allans School children who were reported, but who have since got treatment;

One Episcopal School child. This was a Poor-Law child from Glasgow who was in Stirling for a few months and who got no treatment.



# THIS YEAR'S CASES REQUIRING MEDICAL TREATMENT.

(Not Eyes or Vermin.)

SCHOOL BOARD.	Enlarged Tonsils		Adenoids		ABNORM'L Heart	Ear Disease		Various	
	Treated	Nothing done	Treated	Nothing done	Treated	Treated	Nothing done	Treated	Nothing done
Denny, ... ..	...	1	...	2	1	4	1	4	...
Dunipace, ... ..	...	...	2	...	...	...	...	2	...
Kilsyth, ... ..	...	...	...	3	...	...	...	2	...
Larbert, ... ..	2	...	...	...	...	...	...	...	...
Logie, ... ..	1	...	2	...	...	2	...	4	...
Kippen, ... ..	...	...	...	...	3	...	...	3	...
St Ninians, ... ..	6	...	1	1	...	3	...	1	...
Stirling, ... ..	12	2	4	3	11	3	...	37	5
Total, ... ..	21	3	9	9	15	12	1	53	5

The above table relates to this year's cases whose parents may be intending to have treatment and who have not been tabulated according to result.

Those examined at the end of this year who have had no treatment will be visited next session to find if anything more can be done.

Amongst the 732 Non-Routines, 432 were entered on the Card as requiring some form of treatment.

There were 31 with verminous heads and 67 with verminous bodies, whilst 19 were very dirty and ragged. There were 22 children suffering from skin disease, and 79 with both eyes defective. Other children who are defective have been already examined, so that the Non-Routines now presented are generally for vermin, skin disease, or defective sight and hearing.



## REPORT BY DR SKINNER.

### GENERAL.

This report deals with the period between the beginning of August, 1912, and the end of July, 1913.

The schools dealt with in this section of the report are the same as last year, and will be found detailed on page two of the first Annual Report.

During last year, each school was visited twice for the purpose of routine examinations; and in addition special visits were made for the purpose of re-examining children who had been recommended to obtain medical advice, in order to ascertain how far the defects had been remedied, and, in needful cases, to urge the necessity of obtaining, or faithfully carrying out, treatment.

The number of routine cases examined was 4150, and the number of non-routine (exceptional) cases 718—a total of 4868 children.

Additional visits were paid to schools in connection with outbreaks of infectious disease, and children examined for evidence of undetected disease.

The Medical Inspector again gratefully records his thanks to the Head Teachers for their courtesy and invaluable help in preparation for, and during the medical inspection, and for their assistance in the following-up work.

The district nurses doing school work are Nurse Henderson, Kilsyth; Nurse Hempseed, Lennoxton; and Nurse Vaughan, Drumbowie. The work of these nurses is very valuable, since in their capacity of district nurses they can attend the children brought under their notice by the School Medical Inspector.

As stated in another part of the report, a number of children had to be excluded from school for being in a verminous condition, and the district nurse, being on the spot, proved indispensable in re-examining them and regulating their re-admission to school.

The above nurses jointly paid 967 visits in respect of 291 children, 454 of the visits being on account of verminous conditions.

### CHILDREN RECOMMENDED FOR MEDICAL ADVICE.

In Table I., Part I., are shown the results, or lack of results, following on the notification of the defects to parents or guardians.

758 children were recommended for medical advice. The number of defects was 1201; an average of 1.6 defects per child.

In Table I., Part 2, is shown a synopsis of these defects. The principal defects are, in addition, separately detailed on the following pages.

TABLE I.—PART 1.

SYNOPSIS OF CASES RECOMMENDED FOR MEDICAL  
ADVICE.—ROUTINE AND NON-ROUTINE.

Total number of children with defects notified, ... 758 Total number of defects, ... 1201 Average defects per child, ... 1.6	Defects other than Defects of Vision.		Defects of Vision. Squint, Corneal Opacity, and Cataract included	
Number of defects where a doctor had been consulted and defect remedied, regularly treated, declared irre- mediable, or treatment unnecessary,	507	60.5	161	44.4
Number of defects where a doctor had been consulted and apparently no action taken, ... ..	153	18.3	68	18.7
Number of defects where a doctor had not been consulted, and the defect remedied or regularly treated, ...	37	4.4	19	5.2
Number of defects where no doctor had been consulted and apparently no action taken, ... ..	141	16.8	115	31.7
Totals, ... ..	838		363	

TABLE I.—PART 2.  
ANALYSIS OF DEFECTS.

DEFORMITIES.		NOSE AND THROAT.	
Pigeon Chest, ... ..	7	Mouth Breathing, ... ..	40
Spinal Curvature, ... ..	3	Enlarged Tonsils, ... ..	52
Cleft Palate, ... ..	3	Tonsillitis, ... ..	5
Wry Neck, ... ..	3	Adenoids, ... ..	73
		Enlarged Glands, ... ..	43
		Others, ... ..	20
		Defective Speech, ... ..	40
VISION.		HEART.	
Slightly Defective, $\frac{6}{9}$ or $\frac{6}{12}$ , ... ..	82	Organic Murmur, ... ..	15
Defective, $\frac{6}{18}$ to $\frac{6}{36}$ , ... ..	153	Others, ... ..	3
Very Defective, $\frac{6}{60}$ +, ... ..	18		
EYE.		LUNGS.	
Squint, ... ..	76	Bronchitis, ... ..	9
Nystagmus, ... ..	6	Others, ... ..	5
Blepharitis, ... ..	53		
Stye, ... ..	3		
Conjunctivitis, ... ..	9		
Phlyctenular			
Conjunctivitis, ... ..	9		
Corneal Ulcer, ... ..	6		
Corneal Opacity, ... ..	24		
Others, ... ..	8		
*HEARING.		TUBERCULOSIS.	
Medium, ... ..	104	Pulmonary, ... ..	3
Bad, ... ..	13	Other Forms, ... ..	6
EAR.		INFECTIOUS DISEASE.	
Otorrhoea (right), ... ..	44	Measles, ... ..	2
,, (left), ... ..	47	Mumps, ... ..	3
,, (both), ... ..	10		
Wax, ... ..	23		
Others, ... ..	2		
SKIN DISEASE.		OTHER DISEASES OR DEFECTS.	
Eczema, ... ..	3	Anæmia, ... ..	9
Impetigo, ... ..	11	General Debility, ... ..	23
Ringworm (Head), ... ..	35	Hernia, ... ..	6
,, (Body), ... ..	5	Chorea, ... ..	2
Favus, ... ..	1	Epilepsy, ... ..	2
Sores on Scalp, Face, etc., ... ..	36	Various, ... ..	38
Psoriasis, ... ..	5		

\* Eighty out of 104 having medium hearing had only one ear affected. Eleven out of thirteen having bad hearing had only one ear affected.

Part 1. of Table 1. the sub-divisions of which explain themselves, shows how much has been accomplished in the remedying of defects notified to parents, and how much yet remains to be done. The principal facts that can be drawn from this part of the Table are set out below.

Of 1201 defects, 838 (69.8 per cent.) were defects other than defects of vision, 363 (30.2 per cent.) were defects of vision. Defects of vision therefore total nearly one-third of all defects recommended for medical advice.

**Defects Other Than Defects Of Vision.**—Of 838 defects other than defects of vision, a doctor had been consulted in respect of 660 (78.8 per cent.); of these 838 defects, 507 (60.5 per cent. of this class of defect) were remedied, regularly treated, declared irremediable, or treatment unnecessary. The remaining 153 defects (18.3 per cent. of this class of defect) were not, in the opinion of the medical inspector, satisfactorily dealt with, or were not dealt with at all. In respect of 178 defects (21.2 per cent. of this class of defect) no doctor had been consulted; of these 178 defects, however, 37 (4.4 per cent. of this class of defect) were remedied or regularly treated.

To sum up; of 838 defects other than defects of vision, 544 (64.9 per cent.) were remedied or adequately looked after. The remaining 294 (35.1 per cent.) were neither adequately treated nor remedied.

**Defects of Vision.**—Of 363 defects of vision, a doctor had been consulted in respect of 229 (66.1 per cent.); of these 229 defects, 161 (41.4 per cent. of total defects of vision) were remedied, declared irremediable, or treatment was declared unnecessary. The remaining 68 defects (18.7 per cent. of total defects of vision) were not remedied. In respect of 134 defects (36.9 per cent. of total defects of vision) no doctor had been consulted; of these 134 defects, however, 19 (5.2 per cent. of total defects of vision) were remedied. To sum up: Of 363 defects of vision, 180 (49.6 per cent.) were remedied or adequately looked after; the remaining 183 (50.4 per cent.) were not remedied or adequately looked after.

If the two classes of defects are taken together, it will be seen that out of a total of 1201 defects, 724 (57.25 per cent.) were remedied or adequately treated; the remaining 477 defects (42.75 per cent.) were not remedied or adequately treated, and of these 477 defects, 183 (38.3 per cent. of defects not attended to) were defects of vision, the remaining 294 defects (61.7 per cent. of defects not attended to) being made up of such defects as enlarged tonsils, adenoids, blepharitis, otorrhoea, deafness, etc.

Medical advice was obtained in respect of 71 per cent. of the defects, while only 57.25 per cent. of the defects were remedied. This is largely accounted for by the failure of the parents to carry out advice received.

Slightly over four-fifths of the children who obtained glasses had their eyes tested, and spectacles prescribed, by medical men. The remainder had their eyes tested at various shops selling glasses. The proportion of children last year who had their eyes tested by medical men was two-thirds, and the increase this year to over four-fifths is a step in advance and is largely due to the Kilsyth Burgh and Campsie Parish School Boards having made arrangements for having their scholars' eyes tested by an ophthalmologist. The latter fact also accounts, to a high degree, for the increase of the percentage of children obtaining glasses this year.

A large increase in this figure of 47.2 per cent. should be apparent next year, since a Government Grant for Medical Treatment is again available and is hardly likely to go begging a second time.

#### VISION.—ROUTINE CASES.

			No. Examined.	Normal.	Defective in one eye.	Defective in both eyes.
Boys.						
Age.						
7 years	...	...	596	87.4	6.7	5.9
10 years	...	...	549	90.3	4.9	4.8
13 years	...	...	457	87.	7.	6.
7, 10, and 13 years	...	...	1602	88.3	6.2	5.5
Girls.						
7 years	...	...	574	87.8	5.9	6.3
10 years	...	...	559	84.3	8.6	7.1
13 years	...	...	471	83.9	7.9	8.2
7, 10, and 13 years	...	...	1601	85.4	7.4	7.2

#### Otorrhoea.

Apparently cured,	...	...	...	40
Still under regular treatment,	...	...	...	13
No regular treatment or no attempt at treatment,	39			
Left school,	...	...	...	9

Total cases, ... 101

One ear affected, 91; both ears affected, 10.

**Enlarged Tonsils and Adenoids.**—Ninety-one cases were recommended to obtain medical advice on account of the above conditions, and 58 (63.7 per cent.) did so; 33 (36.3 per cent.) were operated on; 9 (9.9 per cent.) were medically treated; 49 (53.8 per cent.) had nothing done so far as could be ascertained.

**Ringworm.**—35 cases of ringworm of the scalp were discovered; of these, 9 were cured; 17 were much improved; and nine cases were in an unsatisfactory condition. It is necessary for the third time to emphasise the statement that, once the Medical Inspector has notified a case as being ringworm, the precaution of keeping the head closely covered should be insisted on by the teacher, until the Medical Inspector certifies the child free from infection, however long the interval may be.

**Hernia.**—Five cases of hernia were discovered. One had an operation successfully performed. The other cases had no treatment.

**Clothing.**—The figures taken are the teachers' estimates of the usual condition of the clothing, and show that as regards sufficiency, the number considered as being badly clothed was about .72 per cent., and as being badly shod, about one per cent.

**Cleanliness.**—The following Table shows the condition, as regards cleanliness, of the children examined during the past year. The figures for the previous year are given for the purpose of comparison, and it is evident that a considerable improvement has been effected.

#### CLEANLINESS.

Percentages.

	Year.	No. Exam- ined.	Head.			Body.		
			Good.	Medium.	Bad.	Good.	Medium	Bad.
Girls,	1912-13	2071	72.9	25.9	1.2	69.5	27.1	3.4
	1911-12	1981	58.8	37.8	3.4	56.3	35.6	8
Boys,	1912-13	2079	67.1	31.6	1.3	65.7	30.4	3.9
	1911-12	2164	51.9	44.9	3.2	55.4	35.1	9.5

**Verminous Condition.**—204 children were noted as being in a verminous condition, and the houses of the great majority of these were visited by the nurses. This year a number of the worst cases were excluded from school, being informed that they would be re-admitted when clean, and were reported to the School Boards. In several cases the parents were summoned to appear before the Board. These measures were productive of at least temporary improvement, but, in some cases, a period of exclusion of several weeks had to be enforced before the children were found to be clean, and so in a fit state to be re-admitted to school. If this loss of attendance and consequent loss of grant is to be avoided, School Boards will need to instruct prosecution where verminous conditions are not remedied within a reasonable time, and where they recur. The district nurses rendered invaluable assistance in



regulating the re-admission of these children, no child being re-admitted until found clean by the district nurse, who was able to attend at the school at convenient times and intervals of time to re-examine the children. Without their aid, indeed, this work could not be effectively performed. The figures given show that a considerable improvement has been effected as compared with last year.

### VERMINOUS CONDITION.

#### Percentages.

	Year.	No. Examined.	Head.	Head.	Clothes.
			Nits.	Vermin.	Vermin.
Girls - -	1912-13	2071	30.4	2.0	1.5
	1911-12	1981	51.14	2.62	2.83
Boys - -	1912-13	2079	3.2	.43	2.6
	1911-12	2164	6.38	.32	4.76

**Nutrition.**—The nutrition was estimated according to the general fitness of the child, and the following table indicates the percentage results for the year.

### NUTRITION.

#### Percentages.

AGE.			No. Examined.	Good.	Medium.	Bad.
Boys.						
5 years	-	-	477	56.0	43.4	.6
7 years	-	-	596	62.1	37.1	.8
10 years	-	-	549	58.5	40.6	.9
13 years	-	-	457	73.3	26.7	...
5, 7, 10, and 13 years	-	-	2079	62.2	37.1	.7
Girls.						
5 years	-	-	467	62.7	36.4	.9
7 years	-	-	574	59.9	39.5	.6
10 years	-	-	559	62.6	36.5	.9
13 years	-	-	471	68.8	31.2	..
5, 7, 10, and 13 years	-	-	2071	63.3	36.1	.6

The following figures represent the percentages obtained, taking the four ages and the two sexes together.

No. Examined.	Good.	Medium.	Bad.
4150	62.7	36.7	.6

**Height and Weight.**—The following Table shows the average heights and weights at the various ages, compared with the anthropometric standard. The differences are not great; the most noticeable being the minus quantity in the average weight of the boys ten years of age, who are 3.7 pounds below the standard. The corresponding minus quantity last year was 3.6 pounds.

	BOYS.		GIRLS.	
	HEIGHT (Inches).	WEIGHT (Pounds).	HEIGHT (Inches).	WEIGHT (Pounds).
5 years . . .	41.5	41.3	41.4	39.8
Standard . . .	41	39.9	40.8	39.6
Difference . . .	+ .5	+ 1.4	+ .6	+ .2
7 years . . .	45.8	48.9	45.4	47.2
Standard . . .	46	49.7	44.5	46.6
Difference . . .	— .2	— .8	+ .9	+ .5
10 years . . .	51.7	63.8	51.1	63.9
Standard . . .	51.8	67.5	51.1	62
Difference . . .	— .1	— 3.7	...	+ 1.9
13 years . . .	56.9	82.5	57.1	84
Standard . . .	56.9	82.6	57.8	87
Difference . . .	...	— .1	— .7	— 3

**Teeth.**—The Percentage Tables given below indicate what was found in the children examined, and show that only 12.7 per cent. of the children had no decayed teeth.

## TEETH.

## Percentages.

Age.		No. Examined.	None Decayed.	1 to 4.	5 to 8.	9 and over.
Boys.						
5 years	...	177	20.5	33.9	29.3	16.3
7 years	...	596	7.	32.	34.7	26.3
10 years	...	549	7.6	60.1	26.8	5.5
13 years	...	457	21.7	59.	17.5	1.8
5, 7, 10 and 13 years	...	2079	13.5	45.8	27.6	13.1
Girls.						
5 years	...	467	17.5	33.4	26.3	22.8
7 years	...	574	8.	35.5	36.	20.5
10 years	...	559	12.2	63.7	21.3	2.8
13 years	...	471	10.6	66.7	18.5	4.2
5, 7, 10 and 13 years	...	2071	11.9	49.2	25.9	13.

Taking the four ages and both sexes together the percentages are:—

No. Examined.	None Decayed.	1 to 4.	5 to 8.	9 and over.
4150	12.7	47.5	26.7	13.1

## THE TEMPERATURE OF THE CLASS ROOMS.

The subject was examined in some detail in last Report, and an illustrative chart given. Temperature charts are more frequently kept now than formerly, but there are still a few schools where the temperature of each room is not daily noted and charted.

A perusal of a considerable number of charts referring to the past winter does not enable one to modify the statement made in the last Report, that the heating arrangements in many of our schools are very defective and urgently require attention. The matter is obviously a very important one, since it directly affects the whole school population.

## REPORT BY DR PRANGNELL.

This report deals with the examination of school children attending the various schools in the Burgh of Falkirk. There are nine schools, including the Falkirk High School.

The children examined included all who were present during previously arranged dates of inspection at four age periods, after which non-routine cases were examined. The year of birth was chosen for each of the four age periods:—5 year old included all entrants, 7 year old included those born 1905, 10 year old included those born 1902, 13 year old included those born 1899. They were examined at these age periods in rotation throughout the various schools. According to the new arrangement whereby a child can leave school on his fourteenth birthday, it was found that quite a number had left school before being examined. It will therefore be necessary in future to examine the 13 year old children after the 5 year old.

The examinations were conducted as in previous years, valuable assistance being afforded by the various headmasters and their assistants.

**Numbers Examined at Age Periods.**—The numbers examined were,—at 5 years, 367 boys and 351 girls; at 7 years, 414 boys and 361 girls; at 10 years, 315 boys and 308 girls; at 13 years, 240 boys and 196 girls—making a total of 1336 boys and 1216 girls.

**Non-Routine Examinations.**—There were 500 boys and girls examined at non-routine ages for defects noted by the teachers. The total children examined numbered 3052.

The number found defective at Routine Examination was 794, or 59 per cent. among boys, and 730, or 60 per cent. among girls. The greatest percentage of defective children was found in the 7 year old groups of boys and girls.

The number found defective at Non-Routine Examination was 183, or 36.6 per cent. of those presented for examination.

**Already Under Medical Care.**—Among the defective children found at Routine Examinations, 62, or 4 per cent., were already receiving medical attention, as compared with 2 per cent. for the previous year; so that, evidently, more attention is being given by anxious parents to their children's ailments.

Among defective children found at Non-Routine Examinations, 25, or 13.6 per cent., were already receiving medical attention.

## ROUTINE EXAMINATIONS.

## Boys

5

7

10

13

Total.

5

7

## GIRLS

13

Total.

Grand Total,

				Total.																				Total.				Grand Total.																
				Examined.	Defects.	Percentage.	Number of Defective Children.	Examined.	Defects.	Percentage.	Number of Defective Children.	Examined.	Defects.	Percentage.	Number of Defective Children.	Examined.	Defects.	Percentage.	Number of Defective Children.	Examined.	Defects.	Percentage.	Number of Defective Children.	Examined.	Defects.	Percentage.	Number of Defective Children.	Examined.	Defects.	Percentage.	Number of Defective Children.	Examined.	Defects.	Percentage.	Number of Defective Children.									
Clothing and Footgear, . . . . . Head and Body, . . . . . Nits, . . . . . Vermis, . . . . . Deformities, . . . . . Bad Nutrition, . . . . . Vision { 1 Eye Defective, 2 Eyes Defective, External Eye Disease, Hearing Bad, . . . . . Ears { Otorrhea, . . . . . Wax, . . . . . Nose { Tonsils, . . . . . Adenoids, . . . . . Throat { Glands, Etc., . . . . . Defective Speech, . . . . . Dental { 1-4, . . . . . 4-8, . . . . . Caries { 0 and over, . . . . . Skin Disease, . . . . . Circulatory { Functional, Organic, . . . . . Respiratory, . . . . . Vaccination—Bad or nil, . . . . . Nervous, . . . . . Tuberculosis { Phthisis, Glands, Etc., . . . . . Infectious Disease, . . . . . Others, . . . . .	367	12	3.2	227	414	27	6.4	275	315	26	8.2	188	240	10	4.17	104	1336	75	5.6	794	351	6	1.7	194	361	6	1.6	251	308	2	.64	181	196	..	..	..	1216	14	1.1	730	2552	89	3.4	..
	7	1.9	61%	..	17	4.09	66%	..	7	2.2	59%	..	9	3.7	..	..	..	..	40	2.9	..	..	16	4.5	55%	..	14	3.8	..	..	9	3.09	62%	..	44	2.04	..	43	3.5	60%	83	3.2	60%	
	2	..	..	..	9	2.1	..	..	15	4.7	..	..	14	5.8	..	..	..	..	28	2.09	..	..	91	25.9	..	..	119	32.9	..	..	14	4.5	..	44	22.4	..	268	22.0	..	308	12.5	..		
	10	2.7	..	..	8	1.9	..	..	6	1.9	..	..	4	1.6	..	..	..	..	27	2.0	..	..	23	6.5	..	..	9	2.4	..	..	4	1.2	..	2	1.0	..	..	38	3.1	..	66	2.6	..	
	11	2.9	..	..	8	1.9	..	..	8	2.5	..	..	..	..	..	..	..	..	27	3.2	..	..	6	1.7	..	..	6	1.6	..	..	12	.64	..	..	8	..	..	14	1.1	..	41	1.5	..	
	5	1.3	..	..	19	4.5	..	..	15	4.7	..	..	13	5.4	..	..	..	..	44	3.0	..	..	..	..	..	..	17	4.7	..	..	5	1.6	..	..	8	4.0	..	..	38	3.1	..	82	3.2	..
	..	..	..	..	18	4.3	..	..	27	6.9	..	..	13	5.4	..	..	..	..	58	6.9	..	..	..	..	..	..	21	5.8	..	..	13	4.2	..	..	13	6.6	..	..	47	5.5	..	105	5.7	..
	..	..	..	..	30	7.2	..	..	22	6.9	..	..	9	3.7	..	..	..	..	61	5.9	..	..	..	..	..	..	36	9.6	..	..	9	3.09	..	..	16	8.5	..	..	61	7.0	..	122	6.6	..
	..	..	..	..	13	3.1	..	..	14	4.4	..	..	5	2.08	..	..	..	..	46	3.4	..	..	15	4.2	..	..	14	3.8	..	..	5	1.6	..	..	3	..	..	34	2.7	..	80	3.1	..	
	..	..	..	..	8	1.9	..	..	8	2.5	..	..	2	..	..	..	..	..	24	1.7	..	..	5	1.4	..	..	..	..	..	..	2	.64	..	..	3	1.5	..	..	10	.82	..	34	1.2	..
	..	..	..	..	3	..	..	..	2	.63	..	..	3	1.2	..	..	..	..	12	.8	..	..	2	.57	..	..	1	.27	..	..	3	.97	..	..	1	..	..	6	..	..	18	.6	..	
	..	..	..	..	4	1.25	..	..	4	1.25	..	..	3	1.2	..	..	..	..	12	.8	..	..	8	2.2	..	..	1	.27	..	..	3	.97	..	..	1	.51	..	..	13	1.06	..	49	..	..
	..	..	..	..	80	19.2	..	..	31	9.8	..	..	27	11.1	..	..	..	..	206	15.4	..	..	59	16.5	..	..	68	18.8	..	..	27	8.6	..	..	22	11.2	..	176	14.4	..	382	15.0	..	
	..	..	..	..	14	3.3	..	..	6	1.9	..	..	1	.41	..	..	..	..	32	2.3	..	..	12	3.4	..	..	9	2.4	..	..	1	.324	..	..	1	.51	..	23	1.8	..	55	2.1	..	
	..	..	..	..	55	13.2	..	..	28	8.8	..	..	10	4.17	..	..	..	..	142	16.6	..	..	60	17.1	..	..	28	7.7	..	..	10	3.2	..	..	13	6.6	..	111	9.1	..	253	9.9	..	
	..	..	..	..	5	1.2	..	..	3	.95	..	..	4	1.6	..	..	..	..	16	1.1	..	..	..	..	..	..	..	..	..	..	4	1.2	..	..	4	..	..	4	.32	..	20	.7	..	
	..	..	..	..	176	42.4	..	..	146	46.2	..	..	129	53.7	..	..	..	..	558	41.7	..	..	138	39.3	..	..	121	33.5	..	..	144	46.8	..	..	92	46.9	..	480	39.4	..	1038	40.1	..	
..	..	..	..	161	38.8	..	..	109	34.5	..	..	61	25.4	..	..	..	..	459	47.3	..	..	103	29.3	..	..	164	45.4	..	..	98	31.36	..	..	66	33.6	..	394	32.3	..	853	33.5	..		
..	..	..	..	24	5.7	..	..	5	1.5	..	..	2	.6	..	..	..	..	48	3.5	..	..	23	6.5	..	..	24	6.6	..	..	3	.96	..	..	4	2.04	..	53	4.3	..	101	3.9	..		
..	..	..	..	6	1.9	..	..	..	..	..	..	..	..	..	..	..	..	18	1.3	..	..	11	3.1	..	..	5	1.3	..	..	8	2.5	..	..	1	.51	..	..	24	1.97	..	42	1.6	..	
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..	..	..	..	3	.7	..	..	..	..	..	..	..	..	..	..	..	..	19	1.4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
..	..	..	..	44	10.6	..	..	49	15.5	..	..	32	13.3	..	..	..	..	206	15.4	..	..	69	19.6	..	..	44	12.1	..	..	32	10.3	..	..	26	13.2	..	171	14.0	..	377	14.7	..		
..	..	..	..	1	.24	..	..	..	..	..	..	..	..	..	..	..	..	1	.07	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
..	..	..	..	2	.48	..	..	..	..	..	..	..	..	..	..	..	..	2	.14	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
..	..	..	..	3	.95	..	..	..	..	..	..	..	..	..	..	..	..	14	1.04	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
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**Defects Considered by Medical Examiner Serious Enough to Require Attention.**—In the case of 294 children, i.e., 19.3 per cent. among those seen in routine examination, and in the case of 130, i.e., 71 per cent. of those seen in non-routine examination, the parents were notified of some defect or defects. There were, in all, 551 defects to which attention was called. There were 53 children excluded from school for treatment, and until they were able to return without danger to themselves and other children.

**Defects Treated.**—After re-examination by the Medical Inspector once, and sometimes oftener, it was found that 252, or 45.7 per cent. of defects notified to parents, were treated by surgical operation, provision of spectacles, medicinal treatment, or otherwise.

**Defective Cases Whose Names Were Submitted to School Nurse.**—The names and addresses of 75 boys and 107 girls, in whom were found 247 defects which had not received adequate attention, were submitted to the school nurse for her attention. She visited the homes from time to time, and endeavoured to impress parents with the necessity for treatment. This following-up I consider a most valuable, though difficult, part of School Medical Inspection. The Nurse reports that 128, or 52 per cent. of those whose names she received, were treated or improved. Treatment included the provision of spectacles in 11 cases, 18 surgical operations, and other ameliorative measures. Nothing was done for 21 defects. For 23 defects it was stated, by parents, that they could not afford to provide treatment. Parents made promises in the case of 72 defects, which promises were still unfulfilled at the end of the school year. A few of the children left the district.

**Summary of Results.**—Of 551 defects brought to the notice of parents, with advice to obtain treatment, 218, or 39.5 per cent., were seen by the various medical attendants, 381, or 69.1 per cent., were treated by 62 surgical operations, provision of 30 pairs of spectacles, and 289 were treated otherwise.

## AMELIORATION TABLE.

## Treatments.

DEFECTS.	No. notified to parents for treatment	No. Notified to Medical Men	No. seen by Medical Men.	No. of Operations.	No. of Spectacles provided.	No. otherwise treated.	Percentage of those notified to parents who received attention.
Dirty and Verminous ...	65	1	1	...	...	63	96.9
Nits ...	75	...	...	...	...	73	97.3
Caries and Sepsis ...	34	2	...	...	...	8	23.5
Mouth Breathing ...	26	26	15	9	...	6)	62.6
Enlarged Tonsils ...	45	42	25	23	...	5 -	
Adenoids ...	36	32	18	19	...	5)	86.2
Deafness ...	15	13	10	...	...	10)	
Accumulation of Wax ...	13	11	9	...	...	12 -	44.2
Otorrhœa ...	23	11	6	5	...	17)	
Defective Vision ...	95	88	62	...	24	10)	100
Ext. Eye Disease ...	43	38	27	...	6	21)	
Tuberculous } Phthisis ...	9	4	8	...	...	9)	83.3
Disease } Others ...	6	5	4	4	...	2)	
Cardiac } Organic Murmur ...	5	5	4	...	...	4)	94.9
Defects } Others ...	1	1	1	...	...	1)	
Skin Disease ...	39	28	20	...	...	37	28.5
Deformities ...	7	3	2	...	...	2	42.8
Others ...	14	8	6	2	...	4	69.1
	551	318	218	62	30	289	

**Parents Present.**—157 parents attended the examination of their children, equal to about 6 per cent. of the total number invited, as compared with 4 per cent. during the previous year. Special messages were received from parents by letter or through the teacher in some cases, drawing attention to supposed defects. Five examinations were made by the family medical attendant, and notes of the examination sent to me. One parent again objected to have any medical examination of his child.

**Mothers Employed Away.**—According to information received, 52 mothers, i.e., 2 per cent., were employed outside their own homes, as compared with 1 per cent. during the previous year.

**Consumption in the Family.**—As in the previous year, only 1 per cent. recorded a family history of consumption.

**Work Before and After School Hours.**—51 boys and 15 girls were recorded as doing work before or after school hours. 81

per cent. of these were 13 years old, and 19 per cent. were 10 years old, as compared with 76 per cent. and 24 per cent. respectively for the previous year.

**Previous Illness Table.**—Appended is a table showing a record of previous illnesses among children, with percentage of children who have suffered from these diseases on entrance to school and during school life. Much the same results are shown as in the previous year. The greater incidence of such diseases as measles and whooping cough is seen to be before school life. A much larger proportion of children is affected at each period before coming to school. With scarlet fever and mumps, on the other hand, the percentage of children who have had these diseases before beginning school life is small and the percentage increase after five years is greater.

The degree of infectivity varies much in some of those common infections when compared with one another. In my experience, school attendance would not seem to play a conspicuously prominent part in the spread of infection. The opportunities afforded in a populous burgh after school hours, in my opinion, have as much to do with the spread.

From the information available it would appear that at the end of school life

17 to 20 per cent. of children have not been attacked by Measles.  
49 to 50 per cent. have not been attacked by Whooping Cough.  
69 to 70 per cent. have not been attacked by Mumps.

80 per cent. have not been attacked by Chickenpox.

87 per cent. have not been attacked by Scarlet Fever.

96 per cent. have not been attacked by Diphtheria.

PREVIOUS ILLNESS TABLE.

Age Period.	Number of Children.	Measles.	Whooping Cough.	Chicken Pox.	Scarlet Fever.	Diphtheria.	Mumps.	Smallpox.	Rheumatism.	Fits.	Others.
5	718	469 65%	309 43%	107 15%	48 6.6%	16 2.2%	62 8.6%	1	4	5	113
7	775	576 74%	369 47%	157 20%	54 6.9%	11 1.4%	156 20%	...	9	14	88
10	623	521 83%	308 49%	110 17.5%	65 10.4%	18 2.9%	153 24.5%	...	13	9	66
13	436	353 81%	216 50%	86 20%	55 12.6	14 3.3	135 31%	1	16	6	72

**Free Meals.**—The provision of free meals for necessitous children was continued during the winter months, as in the previous year, at three centres. Mr Haddow still continues to direct this philanthropic work with some pecuniary assistance from the Organised Aid Society and a few friends. The number of children who received free dinners consisting of excellent soup and bread was 180, as compared with 150 for the previous year.

**Height and Weight.**—The Tables of Heights and Weights at the four age periods, compared with previous years, show no falling off in the general standard of nutrition. Among boys and girls there is an apparent increase in weight except at the five year old period, the greatest increase being at the thirteen year old period. Boys have not increased in height proportionately to the increase in weight at the thirteen year old period. At the five year old period they have slightly increased in height, with no increase in weight. Girls show a loss in height and weight at five years. At the other age periods they show an increase in height and weight.

Compared with the standard heights and weights, there are as many of the age periods equal to, or above, the standard as there are below.

These estimates of weight and measurement can only be considered as an approximate average.

		BOYS.							
		Height (inches).				Weight (lbs.).			
Age Periods.		5	7	10	13	5	7	10	13
Falkirk, year	1910-11	41.5	45.4	51.2	56.1	40.6	48.0	63.2	77.9
"	" 1911-12	41.5	45.3	51.4	57.7	40.8	48.0	63.1	80.9
"	" 1912-13	42.02	45.42	51.8	57.	40.5	48.6	64.5	82.0
Anthropometric	...	41.0	46.	51.8	56.9	39.9	49.7	67.5	82.6
Difference	...	+1	.6	Same	+1	+6	-1.1	-3.0	-6

  

		GIRLS.							
		Height (inches).				Weight (lbs.).			
Age Periods.		5	7	10	13	5	7	10	13
Falkirk, year	1910-11	41.2	45.4	50.8	56.3	39.2	47.2	60.6	79.6
"	" 1911-12	43.4	45.3	51.0	57.6	39.6	46.6	60.0	83.9
"	" 1912-13	41.1	45.3	51.1	57.7	39.1	47.3	61.7	85.0
Anthropometric	...	40.8	44.5	51.1	57.8	39.6	46.7	62.0	87
Difference	...	+3	+8	Same	-1	-5	+6	-3	-2

**Clothing and Footgear.**—As in previous years, the teachers' estimate of sufficiency of clothing and its state of repair has been recorded, as many children come specially prepared on the day of examination. The percentage of children who attended school throughout the year in a neglected condition as regards sufficiency, state of repair, or cleanliness of clothing, and as regards footgear, was 5.6 for boys and 1.1 for girls, as compared with 6.7 and 3.9 for the previous year. Among boys, the infants were best cared for in this respect. Among girls, no defects were recorded at the 13 year old period.

**Cleanliness of Head and Body.**—In this respect boys, generally, were cleaner than girls, especially among the infants. The 13 year old girls were cleaner than the younger ones. The percentage of dirty boys was 2.9, as compared with 6.8 for the previous year. For girls, the percentage was 3.5, as compared with 6.7 for the previous year. In all classes there has been a marked improvement from the previous year.

**Nits and Vermin.**—On comparing the sexes, a marked difference is found in this respect. Boys, to the extent of 2.9 per cent. of those examined, harboured nits, as compared with 36.8 per cent. of the girls. The older boys and the younger girls were, as in the previous year, the worst as regards nits. As to the presence of vermin, infant boys and girls were worse than the older children, but an improvement has been noted in all classes. A verminous condition of body was more prevalent among the younger children, 65 being verminous, and 75 with nits—giving a total of 140 defects. Sixty-eight received attention, while 72 were transferred to the nurse, who reported that 35 were cleansed, 33 were improved, and 4 still continued to be verminous. To bring about this improvement, 25 were excluded from school for varying periods. Several houses were visited by the Sanitary Inspector and myself. In one case the parent was prosecuted and fined for keeping a dirty house. The school nurse visited the schools and houses—interviewing the parents periodically.

**Dental Caries.**—The condition of the teeth shows no improvement over the previous year, except in the number of children with nine and more decayed teeth. In this class the percentage all over has fallen from 5 to 3.7. The percentage of those having 1 to 4 decayed teeth has risen from 40.5 to 42 per cent. The percentage of those with 5 to 8 decayed teeth remains as in the previous year at 34.5.

The percentage of children with no decayed teeth remains about the same. The teeth of girls are in worse condition than are those of boys. Thirty-four notices were sent to par-



ents, of which only eight were treated. Only when parents come to understand the value of a good dentition will sufficient attention be given to the teeth of children.

**Table Showing State of Dentition of Children Examined.**

Age Group.	Number Examined.	None Decayed.	1 to 4.	5 to 8.	9 and over.
Boys.					
5	367	31.28	29.1	34.8	4.6
7	414	12.72	42.4	38.8	5.7
10	315	17	46.2	34.5	1.5
13	240	19.68	53.7	25.4	.8
Total.	1336	20	41.7	34.3	3.5
Girls.					
5	351	24.36	39.3	29.3	6.5
7	361	14	33.5	45.4	6.6
10	308	20.16	46.8	31.36	.96
13	196	17.34	46.9	33.6	2.04
Total.	1216	19	42	35	4

**Tonsils and Adenoids.**—Fifteen per cent. of those examined had enlarged tonsils, 2.1 per cent. had adenoids, as compared with 21 per cent. and 4.5 per cent. respectively in the previous year. Unlike the previous year, the figures relating to boys were worse than were those relating to girls. The notices sent out referred to 45 children with enlarged tonsils and 36 with adenoids, these defects being considered serious enough to interfere with the health of the children. Among this class may be included 26 pronounced mouth-breathers, this feature being due in some cases to enlarged tonsils and adenoids, and, in a few to nasal defects, such as enlarged turbinates. As a result of bringing these conditions under the notice of the parents and medical men, operations were performed for the relief of four mouth-breathers, of 15 suffering from enlarged tonsils, and of 14 with adenoids, while 6 mouth-breathers, 5 with enlarged tonsils, and 5 with adenoids were treated by local applications. The names of fifty children with such defects were given to the school nurse, because no steps were being taken in the direction of remedy. Of this number, she reports that 18 were operated on for the removal of defects, 8 refused to do anything, and 24 made promises which are still unfulfilled. It is satisfactory to note that 62.6 per cent. of these defects were remedied, although, in the previous year, 69 per cent. were remedied. There is a general aversion



on the part of parents to surgical operation, an aversion which is in some instances shared by the medical attendant. Frequently the parent prefers to wait until the child is older, or to defer operation in the hope that the condition will improve in the course of nature.

**Glands.**—Enlarged submaxillary and cervical glands were found present in 16.6 per cent. of boys and 9.1 per cent. of girls, as compared with 16.8 and 16.5 per cent. respectively for the previous year. As in the former year, the younger children suffered most.

**Vision.**—Apart from the five-year-old group, 1834 children were examined as to their visual acuity. Of this number 5.7 per cent. were recorded as having defective vision in one eye, 6.6 per cent. in both eyes, while 87.8 per cent. were in this respect considered normal, being able to read Snellen's Type at the proper distance. A greater proportion of girls than of boys was found with defective vision. At the seven year old period both girls and boys had the greatest percentage of defects, there being an improvement noticed at the higher age periods. In boys this improvement continued where both eyes were found defective. In girls the improvement is very marked at 10 years of age, after which the percentage rises where both eyes are defective. At 13 years the girls are much worse than the boys where both eyes are defective. This corresponds with the general results of the previous year.

Table Showing Results of Vision-Testing of Routine Cases.

Age Group.		Number Examined.	Number found Normal.	No. found defective in one eye.	No. found defective in both eyes.
Boys.					
7 years	...	414	88.5	4.3	7.2
10 years	...	315	84.5	8.5	6.9
13 years	...	240	90.8	5.4	3.7
Total	...	969	88.1	6.	5.9
Girls.					--
7 years	...	361	81.6	5.8	9.6
10 years	...	308	92.7	4.2	3.09
13 years	...	196	84.9	6.6	8.5
Total	...	865	87.5	5.5	7.

**External Eye Disease.**—All available children at the four age periods were examined. The principal defects were Squint, Blepharitis, Conjunctivitis, and Corneal Opacities. In this respect 3.4 per cent. of boys and 2.7 per cent. of girls were defective, as compared with 3.8 and 5.6 per cent. for the previous year. Girls were worse in this respect than boys at 5 and 7 years, but show a very marked improvement at 10 years, whereas boys get worse. At 13 years of age boys show a 50 per cent. improvement, while no external eye defects whatever were noted among girls at 13 years of age.

As in previous years, all children with the visual acuity of both eyes  $6/18$  or less, as measured by Snellen's test-type, were brought under the notice of parents. Lesser defects, if accompanied by eye-strain, or external eye defects, were also notified. Including non-routine cases, 138 cases of defective vision or of external eye disease were recommended for treatment, 116 were notified to medical men, 89 were actually seen by medical men, 19 were provided with spectacles, and 28 were otherwise treated. The names of 70 children with serious eye defects, for which nothing had been done, were forwarded to the school nurse, who reported that 11 were afterwards provided with spectacles, and 28 otherwise treated. Twenty-one stated they were too poor, and 34 promised to do something. Of the 138 defects recommended for treatment, 61—which is equal to 44.2 per cent.—were ameliorated. There were two cases whose vision was becoming progressively worse, and for which nothing could be done. Seven cases of external eye disease were excluded from school for purposes of treatment, and as a precaution against spread of infection.

**Ears.**—Twenty-four boys and 10 girls were defective in hearing. In the case of the younger boys, Otorrhoea was the most common cause of deafness found at the time of examination. The youngest girls were more affected by wax in the ears. The older children, both boys and girls, suffering from deafness were not so markedly affected by either Otorrhoea or wax. There was evidence that deafness among older children was the result of past illness—measles and scarlet fever. The largest percentage of children suffering from deafness, Otorrhoea and wax, were in 5 year old and 10 year old groups, and might account for the larger percentage of dull and backward children at these same age periods. Among girls of the 7 year period my impression has been that adenoids increased the percentage of deafness.

Parents were advised to provide treatment in 15 cases of deafness, 13 wax in the ears, and 23 Otorrhoea—a total of 51 defects, of which 35 were notified to medical men, 25 were seen by medical men, 5 were operated on, and 29 were other-

wise treated. Thirteen cases were notified to the school nurse, who reported that 10 had been treated, the others having made promises.

Of cases recommended for treatment, 10, or 66 per cent., of deafness, 12, or 92 per cent., of wax in the ears, 17, or 95 per cent., of Otorrhoea, were treated.

**Speech.**—Defects of speech were noted in 1.1 per cent. of boys and .32 per cent. of girls, as compared with 1.3 per cent. and 1 per cent. respectively for the previous year. Lispering, stammering, and indistinctness were the chief defects.

**Mental Condition.**—There were 35 boys and 28 girls who were backward or below the average. The largest number of these was in the 10 year old group of both sexes. There was one boy and one girl mentally defective, both 10 years of age. The girl interfered so much with the work of the class that the teacher was advised to report to the School Board that she should be excluded from attendance at an ordinary school.

**Heart and Circulation.**—There were 5 cases of organic heart disease, all of which were notified to parents and medical men. Four received medical attention. As in the previous year, the disease was more prevalent among boys.

**Respiratory Diseases.**—There were 42 cases of Bronchial Catarrh and Bronchitis, as compared with 32 for the previous year.

**Tuberculosis.**—There were 6 cases of Phthisis and 3 suspicious cases of Phthisis, as compared with 29 discovered during the previous year. These were all brought under medical notice and received attention. There were 32 cases of tuberculosis other than Phthisis. Five of these were brought under the notice of medical men, and 4 were treated by surgical operation.

**Skin Disease.**—There were 42 cases of skin disease recorded during routine examination, equal to 1.3 per cent. of boys examined and 1.9 per cent. of girls. In addition, 14 cases were found in non-routine examination. The total number of cases included 22 of Eczema, 2 of Scabies, 3 of Favus, 19 of Impetigo, 5 of Ringworm, and 5 of other skin diseases.

Of the total, 39 were notified to parents, 28 to medical men; 17 were excluded for purposes of treatment and to prevent spread of infection, and 37 were treated. Fifteen were notified to the school nurse for observation. Almost 95 per cent. received treatment.

**Deformities.**—Among Routine and Non-Routine cases there were 5 with some degree of spinal curvature, 16 with bow legs or knock knees, 3 with Talipes, one with Hernia 2 with Wry Neck, and 25 with other deformities due to Rickets. Of 7 cases notified, only 2 were seen by medical men and treated.

**School Hygiene.**—The conditions influencing the general health of teachers and scholars in the Burgh Schools are fairly satisfactory. There has been no overcrowding in any of the schools. The total accommodation provides for 7720 children. The total number on the rolls was 6411. The average attendance was 5646.

**Infectious Disease.**—Owing to the prevalence of measles, whooping cough, mumps, etc., I certified, in terms of the Public Health (Scotland) Act, on lists made out by the teachers for the periods noted in registers as arranged. In co-operation with the teachers, as Medical Officer of Health, I received notice of 605 cases of measles, 210 cases of whooping cough, 474 cases of mumps, 118 cases of scarlet fever, 26 cases of infectious skin diseases, 12 cases of diphtheria, 29 cases of chickenpox, all of which had been excluded from school either as patients or as contacts. Claims for special grant were made on these certificates.

As far as possible, the Burgh Health Visitor visits the homes, and an attempt is made to control the spread of infection.

**School Cleansing.**—In my previous report I mentioned that there was room for improvement in the arrangements as existing for two years in the cleansing of schools. I am now in a position to report that two additional cleaners have been provided for each school. Previously the staff of cleaners was sufficient to undertake scrubbing of all floors and furniture four to six times a year. By the new arrangement all floors and furniture are scrubbed every six weeks. Walls are also cleaned every six weeks. The convener of school cleansing is empowered to grant further help on written order when necessary. This is a great advance, which must tend to cleaner rooms and a purer atmosphere. I have found the general sanitary conditions satisfactory. The sanitary conveniences were well attended to. The Junior High School and Central School were disinfected by the Sanitary Staff of the Public Health Department. Disinfectants were supplied to Janitors for other schools. The Janitors were instructed as to the best method of spraying.

Floors are swept after school hours with sawdust moistened with disinfectant. Dusting is done in the early morning. Windows and glass partitions are cleaned once in six weeks. Covered ash-bins are provided for daily removal in a dust-cart.

**Towels and Soap.**—A more liberal supply of clean towels is wanted in most of the schools. In one school this was well attended to. In one school the Headmaster informed me that the practice of providing clean towels was stopped as the children misused them. I believe in a case of that sort hand cleansing drill, under the supervision of one who could exercise due authority, would improve matters.

In none of the schools was the air positively disagreeable on entering class rooms from the fresh air. Some more cross ventilation is still required, however, in the inner rooms, and could be provided at little cost by a perforated opening.

The temperature chart in two of the schools shows an unduly low curve in winter. Heating and ventilation cannot be satisfactory on cold, damp days in these schools. The other schools presented charts not under 50 degrees F., a good working temperature in winter.

Playgrounds were only fair in good weather and bad in wet weather, with more or less irregular ash surfaces. More cementing, or, still better and cheaper, tar macadam, is wanted.

**School Furniture.**—In the Central School the children, even infants, are cramped, seats being too low. In other schools the furniture is graded to suit the children.



## REPORT BY NURSE GIBSON.

I have much pleasure in submitting the third Annual Report of my work done as School Nurse for the year ending July 31st, 1913.

The work has been, on the whole, pleasant, and except for a period of a little over a week, when I was laid aside through influenza, I was on duty every day throughout the year. The inclement weather experienced during the long winter, and the extra trouble involved in re-visiting cases where people had removed from their houses, made my work rather trying at times; but these are difficulties associated with the work, and must be taken as they occur. On days, however, when such conditions were not encountered, I was able to do more visits.

During the year, I made 3,440 visits (450 more than last year) to parents and guardians reported to me by the three School Medical Inspectors for the County, and by Headmasters who themselves reported cases of dirty and verminous children, in addition to those noted by the doctors at their regular visits. Of these, 1,636 were made in Dr Gardner's district, 1,065 in Dr Skinner's, and 739 in Dr Prangnell's.

The total number of children reported was 1,296, suffering from 1409 defects. In all, 457 children were dirty and verminous, 395 suffered from defective eyesight, 341 from enlarged tonsils, adenoids, running ears, decayed teeth, and other affections of the throat, nose, ears, and mouth. There were also 216 cases who, because of various other defects, required medical treatment.

Twenty-two more children were reported for dirt and vermin than during the previous twelve months. Of the 457, 244 were in Dr Gardner's district, 113 in Dr Skinner's, and 100 in Dr Prangnell's. This part of my work was, as might be expected, the most disagreeable. It seems, in some cases, impossible to get the mothers to keep their children clean and tidy. In Dr Gardner's district alone, 72 out of the 244 cases had to be reported as showing "no improvement," and that after repeated visits. In one case I made eight visits, in another seven, and in some, five and six were necessary, and I fear the children are not clean yet. One cannot blame the children. The mothers are alone to blame; for even the threat of extreme measures seems to have no effect. Shame for their own and their children's condition appears to be entirely absent.

Thirty-six more children were reported as having defective eyesight, than during the previous year. I visited all the 395



cases and gave the advice required. In many cases poverty was pleaded—and justly so—as an excuse for the defect remaining unattended; in many, where that excuse was not allowed, promises were made repeatedly, and in many cases unfulfilled. From the doctors' figures, it will be seen in exactly how many cases treatment followed advice.

The same remarks, practically, apply to the cases where medical skill was required because of enlarged tonsils, etc. It is difficult to persuade some people of the great necessity for consulting a doctor in cases where the defect is not actually apparent, or such as to prevent the child from going about. However, a good measure of success attended the cases where such advice was given.

I cannot complain of the reception I had anywhere, even in the disagreeable cases.

May I take this opportunity of thanking the Headmasters and Teachers at the various schools for help given me in my work? Their knowledge of the parents and guardians enables them to tell me sometimes how to speak to them and where "tact" is required. Such help is invaluable.

The following Table details the cases in the three districts:

Name of Doctor.	No. of Children reported.	No. of visits.	No. of conditions reported.	No. of cases of defective vision.	No. of cases with disease of nose, throat, ear, or mouth.	No. of cases of dirt or vermin.	Various defects and diseases.
Dr Gardner	550	1636	579	112	92	244	131
Dr Skinner	495	1065	547	207	161	113	66
Dr Prangnell	251	739	283	76	88	100	19
Totals ...	1296	3440	1409	395	341	457	216





